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ABSTRACT

          This SPEC (Systems and Procedures Exchange Center) Kit is
based on a survey of Association of Research Libraries (ARL) member libraries
in June 2000. The goal of the survey was to identify issues to be addressed
and actions ARL might take to advance the preservation goals of the members.
The survey was designed to gather data on recent changes, successes, and
challenges to preservation programs, staffing and funding patterns for
preservation, staffing and funding patterns for digitization efforts, and
trends in managing preservation programs. A total of 87 libraries responded
to the survey. A copy of the questionnaire with tabulated results is
presented. The following representative documents from participating
libraries are included: policy and procedure documents from Arizona State
University, Columbia University (New York), the National Library of Canada,
and the Smithsonian Institution (District of Columbia); plans and reports
from Johns Hopkins University (Maryland), the New York State Library,
Syracuse University (New York), the University of Washington, and the
University of Western Ontario; organization charts from Arizona State
University, Columbia University, Pennsylvania State University, and the
Smithsonian Institution; and budgets from Syracuse University and the
University of Tennessee. (Contains 21 references.) (MES)

SPEC

Kit 262

Preservation and Digitization
in ARL Libraries
July 2001

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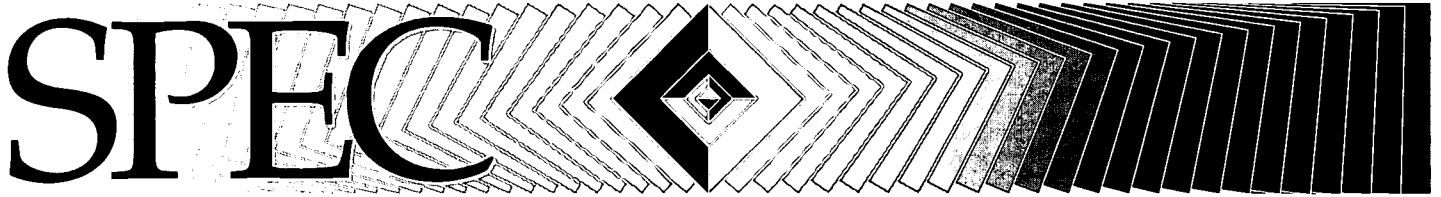originating it.

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Preservation and Digitization
in ARL Libraries

A SPEC Kit compiled by

Janice Mohlhenrich
Preservation Officer
Emory University

July 2001

SPEC
Supporting Effective Library Management for Over Twenty Years

Committed to assisting research and academic libraries in the continuous improvement of management systems, OLMS has worked since 1970 to gather and disseminate the best practices for library needs. As part of its committment, OLMS maintains an active publications program best known for its SPEC Kits. Through the OLMS Collaborative Research/Writing Program, librarians work with ARL staff to design SPEC surveys and write publications. Originally established as an information source for ARL member libraries, the SPEC series has grown to serve the needs of the library community worldwide.
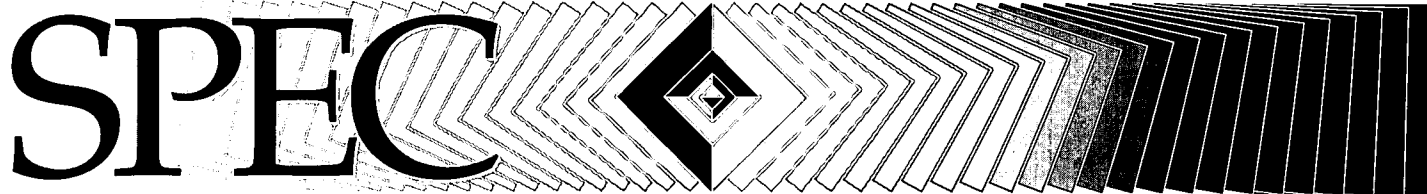
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SPEC

Kit 262

Preservation and Digitization
in ARL Libraries
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Survey

Representative Documents

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Selected Resources

SURVEY

Executive Summary

Introduction

This SPEC Kit is based on data gathered by an ARL Preservation Committee survey of ARL member libraries in June 2000. The committee wished to gather more detailed data on members' preservation programs than is collected in the annual ARL *Preservation Statistics*, including data on the involvement of preservation staff in new digitization initiatives. The goal of the survey was to identify issues to be addressed and actions ARL might take to advance the preservation goals of the membership. The survey was designed to gather data on recent changes, successes, and challenges to preservation programs, staffing and funding patterns for preservation, staffing and funding patterns for digitization efforts, and trends in managing preservation programs. Eighty-seven libraries responded to the survey. While survey responses from some major programs are absent, sufficient data were collected to identify major issues and trends.

Preservation Program Developments

The first five questions of the survey were intended to be answered collaboratively by the library director and the individual with primary responsibility for the library's preservation activities. These questions sought insight into the preservation program's recent developments and accomplishments, its current challenges and ability to fulfill the library's needs, and factors that will impact the program in the future. When asked whether the library's preservation program had changed over the past five years, 32 (37%) answered "significant change," 28 (32%) answered "moderate change," and 27 (31%) answered "slight or no change." Respondents described many different types of changes. Those who reported significant change cited a growing focus on, or activity in, digitizing for preservation and/or digital archiving; creation of a preservation department or program; creation of a preservation librarian position; and staffing changes, all but one of which were position gains. Those who reported moderate change cited changes in personnel, mainly gaining new positions; a growing focus on, or activity in, digitizing for preservation and/or digital archiving; and growth or improvements in conservation activities.

Responses to the question on the library's top preservation accomplishments over the past five years indicate a broad range of activities. The categories noted most often were growth or stabilization of funding (34%); investigating, establishing, or expanding digital preservation activities (28%); and new or expanded preservation or storage facilities (26%).

The responses on preservation challenges facing the library today were equally broad ranging. The most frequently cited categories were lack of funding (46%), preserving digital resources (36%), reformatting growing collections of brittle books (30%), lack of environmental control (26%), and hiring and retaining quality staff (26%).

Forty percent of respondents believe that their preservation program is meeting the library's current needs. About one-third believe that their program is not. One-quarter believe that their program is meeting the library's needs in some areas but not in others. Many who see deficiencies in their program's ability to meet the library's needs listed areas for improvement. The most prevalent were the three issues that dominate this section of the survey: funding (44%), digital preservation (27%), and staffing (25%).

When asked what factors will influence most significantly the future direction of the preservation program, funding was the overwhelmingly response (73%). Digital technology was second (38%) followed by commitment, strategic planning, and vision of management (36%), and personnel (29%).

Emergent Themes

Three themes emerged from responses to questions across the survey. Concerns about funding levels, digital preservation, and staffing levels appeared repeatedly. Overall, the data reflect an important evolutionary trend for preservation programs. After years of struggle on the part of practitioners to educate library administration, colleagues, and users about the scope and significance of preservation efforts, it appears there has been some success in positioning preservation as an essential, integrated library service. The ubiquity of preservation efforts is becoming more recognized. On a less positive note, recognition of the inseparable nature of preservation work from other library functions means that today preservation programs are faced with new struggles—insuring that budgets, staff, and projects are reserved for preservation and not siphoned off for other, related functions.

Funding

Almost half of the survey respondents (46%) reported lack of funding as one of the top three preservation challenges facing the library. Seventy-three percent indicated that funding is the factor that will most significantly influence the future direction of the preservation program. An interesting dichotomy in funding sources is revealed by the survey responses. On average, the majority of preservation funding comes from operating funds (87%). Only a little more than half of the funding for digitization comes from operating funds (55%); fifty-two percent comes from grants. Thirty-six percent of the responding institutions obtain 100% of their preservation funding from operating funds while only twenty-one percent obtain 100% of their digitization funding from operating funds. The proportion of endowments and grant monies

supporting digitization is worth monitoring. Funding opportunities from granting agencies could have the potential to skew preservation programs toward digitization projects.

Digital Preservation

"Digital preservation" is believed by many in the field to be a misnomer. They argue that in the absence of digital repositories, digital preservation doesn't exist; rather, libraries are digitizing collections to enhance access. Regardless, research libraries are digitizing collections, and in most, preservation programs are contributing to the efforts. The documentation on the role of preservation in digitization efforts in ARL libraries that was provided by survey respondents reflects a range of involvement from consultative to proprietary. The ubiquity of digitization projects is also shaping preservation strategy as it changes information delivery methods and services. As all ARL libraries seek ways to incorporate digitization projects and products into their schemata, interesting patterns of collaboration with preservation programs are being reveled. One senses that the preservation community is quickly evolving and adapting to the challenges posed by preservation of digital objects.

Staffing

Staffing issues have long been a concern for preservation programs. The number of staff devoted to preservation, the level of the positions involved, and the duties assigned to the positions signal the focus of a given program, may indicate its maturity, and certainly reflect the scope of the efforts with which preservation programs are involved. The survey requested detailed information about staffing levels for preservation and digitization activities. For preservation activities within preservation units, professional staff is largely dedicated to special collections conservation (average 1.39 FTE) and, not surprisingly, preservation administration (1.03 FTE). Support staff is dedicated to bindery/shelf preparation (2.87 FTE) and microfilming (2.29 FTE). Student/temp staff is concentrated in bindery/shelf preparation and general collections conservation

treatments. Outside of preservation units, fewer staff overall are involved in preservation activities. This professional staff focuses predominantly on preservation administration. Support and student/temp staff is dedicated to bindery and shelf preparation.

A clear pattern emerges from the data provided on staff involvement in digitization activities. Overall, the majority of staff activity related to digitization is outside the preservation unit. Professional staff is largely involved with selection and post-scan quality control. Support and student/temp staff is involved with metadata creation, quality control, and digitizing.

The survey also requested information on the change in staffing levels for preservation activities over the past five years. In preservation units, the largest gain in professional staff was in special collections conservation; the largest decrease was in microfilming. The largest support staff gain was in the "other" category, where growth was reported by libraries in collections storage and care, and brittle book reformatting/replacement; the greatest decrease was in bindery/shelf preparation. The largest gain in student/temp staff was in general collections conservation; the largest decrease was in bindery/shelf preparation. For preservation activities performed by other library units, the largest professional staff gain was in preservation administration and care of nonpaper media; the largest decrease was "other" (unspecified). The largest support staff gain was in general collections conservation and bindery/shelf preparation; the greatest decrease was in "other" (unspecified). Student/temp staff was gained in special collections conservation; decreases were largest in bindery/shelf preparation.

A preponderance of survey respondents indicated that, given the opportunity, they would add new, permanent preservation positions in general collections conservation (72%), special collections conservation, (59%), and preservation administration (36%). There is general agreement that more staff is needed and a shared recognition that preservation programs are increasing the scope of services they provide. There is widespread recognition that preservation is an increasingly critical component of ARL library management and service.

Preservation Studies

The survey inquired about collections condition surveys and environmental conditions monitoring and improvements. Out of 87 responses, only 21 libraries (24%) reported performing a collections condition survey within the past three years. On the other hand, 77 libraries (89%) regularly monitor environmental conditions. The most common environmental monitoring instruments used are hygrothermographs (64%), dataloggers (36%), and temperature and humidity sensors (21%). Half of the libraries that monitor environmental conditions do so in special collections; almost one-quarter monitor conditions in storage areas. Fifty-three libraries (61%) reported significant improvements in environmental conditions in their buildings over the past three years, with close to one-third of those improvements made through new building construction or renovation and almost one-quarter made to the HVAC system.

Conclusion

The competition for scarce resources is inextricably bound to the increased recognition of preservation as a mission-critical library program, no more separable than cataloging or reference. Preservation programs—as reflected in the responses to this survey—provide a broad array of services within their institutions. Some are new, small programs, addressing basic issues: care and handling of library materials, commercial binding, microfilming projects, and environmental controls. More mature programs continue to address these core elements, but are going beyond them to address preservation concerns brought to the fore by digitization projects, some of which are managed by the preservation office, some of which are distributed across the organization. As established preservation programs seek to maintain fundamental services while expanding into the digital arena, something inevitably is lost. Notable in the survey responses is the small number of

collection surveys done recently in ARL libraries. What does this signify for the future? What does it suggest about the digitization projects now underway?

The survey results do not relieve all of our concerns about preservation and digitization. The data gathered and the insights to be learned from it satisfy the goal of the survey. The documentation provided by respondents offers insights into successful strategies for organizing and managing the workflow of digital projects, staffing for preservation, and funding an expanding range of preservation initiatives. In all cases, the data suggests that the ability to regularly conduct collection surveys and the ability to systematically assess progress toward organizational preservation goals would be of benefit both to the individual institution and to academic libraries as a whole. The data do not reflect a consensus of approach or action; rather they present a number of strategies currently being employed by the ARL membership. Examining the differences and similarities of approach practiced at the various institutions, and reflected by the documents provided here, resulted in one valuable insight: we in the preservation community are unable to concretely identify one or two best practices at this time. It is clear that the institutions that provided the documentation compiled here can help other libraries know what questions to ask in order to make informed decisions about how and where preservation and digitization fit into their organizations.

Survey Results

The objective of this survey is to collect information on traditional preservation functions as well as on digitizing activities that are underway in ARL libraries. Please use this paper copy of the survey as a worksheet and enter your final data on the Web at <http://db.arl.org/preserv/>. The survey will close on 3 July 2000. If you have any questions about the survey, contact Kaylyn Hipps, ARL Editorial Specialist, at <kaylyn@arl.org>.

Preservation
The term "preservation program" refers to the activities listed in question #6, regardless of whether they are organized into a single administrative unit or are distributed throughout the library—and regardless of whether all or only some activities are undertaken. Terms are used as defined in the annual *ARL Preservation Statistics*.

Digitizing
Please refer only to those digitizing activities that result in the addition of digital objects to a digital library. Do not include, for example, scanning for presentations, temporary exhibits, and e-reserves.

Questions 1 through 5 are designed to be answered by the director or an associate director in collaboration with the library staff member who has primary responsibility for preservation activities.

Note: Eighty-seven of the 121 ARL member libraries (72%) responded to the survey.

Preservation Program Development

1.   Has the library's preservation program developed or otherwise changed over the course of the past five years?

Significant change	32	37%
Moderate change	28	32%
Slight or no change	27	31%

Please describe changes that were moderate or significant in size and/or scope.

Moderate Changes	n	%
Personnel	14	50%
Digitizing	9	32%
Conservation	7	25%
Microfilming	5	18%
Book repair	4	14%
Disaster preparedness	4	14%
Facilities, or equipment	4	14%
Other	17	61%

Please describe:

Audio preservation (began)
Binding (better controls and products; new contract)
Funding (1 increase; 1 decrease)
Library increased focus on preservation
Preservation photocopying (1 began; 1 outsourced)
Flood recovery
Mass deacidification (began using vendor)
Reshaping focus to cover both preventive and remedial preservation
Reshaping focus to treat collections as well as single items
Shifting focus from conservation to reformatting
Shifting focus toward the "working" collection and production
Staff education/training (more focus)

Significant Changes	n	%
Digitizing	12	38%
Creation of preservation department or program	9	28%
Creation of preservation librarian position	8	25%
Staffing	8	25%
Facilities, environment, equipment	6	19%
Funding	6	19%
Conservation	5	16%
Other	17	53%

Please describe:

Education/outreach/training improved
Microfilming (initiated; increased; improved workflow)
Deacidification (program introduced)
Disaster preparedness (planning and training)
Strategic planning (special collections; whole library)
Audiovisual preservation improved
Binding (improved standards and turnaround time)
Program is more broad-based, sophisticated, accountable

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2. Please list your library's top three preservation accomplishments over the past five years. (n=86)

	n	%
Funding	29	34%
Digital activities	24	28%
Facilities	22	26%
Microfilming	20	23%
Staff	19	22%
Environmental control	14	16%
Special collections, manuscripts, rare books	12	14%
Disaster preparedness	12	14%
Education/training/outreach	11	13%
Binding	10	11%
Deacidification	9	10%
General collections care and conservation	9	10%
Other	51	59%

Please describe:

Equipment—new, better (often for conservation lab)
Creation/expansion of department/program
Audio/visual materials preservation
Book repair—developing and expanding program, improving techniques, or integrating into routine decision making
Consortial projects
Condition assessment
Database for control of preservation activities
Outsourcing
Preservation photocopying—initiation of or improved quality
Selection—conspectus-driven model to complement use-based selection; withdrawal of duplicate copies to prevent overcrowding
Improved access to microfilm
NEDCC preservation survey
Venue for national preservation meetings
Preservation Officer on national task forces and committees
Established local storage committee
Consultation on workflow issues
Freezing of materials for insect infestation
New policy to retain all original dust jackets
Including preservation in library strategic plan
Replaced acidic PAM binders
Safer book trucks
Restorations from 1997 flood

Notes:
Funding—most grants specified are for reformatting except a Mellon grant for preservation program planning, an NEH Challenge Grant used to establish a preservation endowment, and an IMLS grant for developing a nondestructive playback system for cylinder recordings. Also classified under

funding is one institution's response that they "downsized" their program by 40% without losing essential services.

Microfilming: grants specified include NEH, NEH/CIC, USNP, RLG, SOLINET, USAIN, Brittle Books, and Mellon.

3.   Please list the top three preservation challenges facing your library today. (n=87)

	n	%
Lack of funding	40	46%
Preserving/archiving digital resources	31	36%
Reformatting growing number of brittle books	26	30%
Lack of environmental control	23	26%
Personnel	22	25%
Preserving/conserving non-book formats	19	22%
Digital imaging for preservation	15	17%
Lack of space	12	14%
Storage	12	14%
Continuing to perform traditional preservation activities while exploring new formats and technologies	11	13%
Deacidification	10	11%
Other	66	76%

Please describe:

Conservation (establishing conservation lab; large scale of needs)
Education of staff and users
Acidic paper
Lack of a balanced, coordinated, collaborative preservation program for whole library system
Lack of institutional interest in/commitment to preservation
Size and aging of collections
Lack of equipment
Disaster preparedness
Preservation/conservation of "medium-rare" volumes in general collections
Lack of time
Building renovation or move
Damage of materials (from book drops, misuse, vandalism)
Loss of access to older technology
Insect infestation
Continued reliance on print-based collections
Long-term preservation implications in ownership vs. access debate
Developing new treatment techniques, research re media longevity, standards for preservation
digitizing, management strategies
Recovering from 1997 flood
Needs assessment of all collections
Outsourcing
Establishing a cooperative approach to preservation (state, national, international)

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4.   How well is your preservation program meeting the needs of the library at this time? (n=87)

	n	%
Meeting the library's needs	35	40%
Not meeting the library's needs	30	34%
Meeting the library's needs in some areas but not in others	22	26%

Areas in which needs are not being met	n	%
Funding/resources	23	44%
Digital preservation	14	27%
Staff	13	25%
Special collections, archives, manuscripts	8	15%
Conservation	7	13%
Deacidification	7	13%
Coordination with other library or campus units	7	13%
Disaster preparedness	5	10%
Education	5	10%
Reformatting	5	10%
Other	34	65%

Please describe:

Local collections
Nonpaper media
Brittle books
Environmental conditions
Space constraints
Binding
Cooperative preservation (with other institutions)
Lack of commitment
New program (needs to develop)
Selection policies, replacement
Customer service in reformatted materials
Equipment
Physical treatment
Remote storage
Scan-on-demand
Stacks maintenance
Time

5. What factors will influence most significantly the direction of your preservation program in the future? (n=86)

	n	%
Funding	63	73%
Digital technology	33	38%
Commitment and vision of management	31	36%
Personnel	25	29%
Other	63	73%

Please describe:

Cooperative/consortial projects
Availability of space
Building construction or renovation
Growing collections of nonpaper media
Priority university places on preservation
Ability to adapt to new technology
Changes in collection development and document delivery
Equipment
Increased resources to address brittle books problem
Needs of library patrons
Continued deterioration of paper collections
Environment
Preservation/conservation of special collections
Training and education
Collection use
Housing of the collection
Research about binding
Time

Current Preservation Program Staffing and Funding

6. Please report FTEs currently dedicated to the following preservation activities and footnote positions that are grant funded. Do not include digitizing activities here; please include FTEs dedicated to digitizing in response to question #10. (n=86)

Activities		Preservation Unit		
		Professional staff	Support staff	Student/ temp staff
Preservation administration	Min	0	0	0
	Mean	1.03	.74	.39
	Max	6.50	4.50	1.50
Bindery & shelf preparation	Min	0	0	0
	Mean	.42	2.87	1.29
	Max	3.00	14.00	4.00
Conservation—general collections	Min	0	0	0
	Mean	.51	1.27	1.19
	Max	1.60	3.50	5.00
Conservation—special collections	Min	0	0	0
	Mean	1.39	.90	.58
	Max	27.00	7.00	8.00
Mass deacidification	Min	0	0	0
	Mean	.22	.21	.10
	Max	2.50	2.00	1.00
Microfilming	Min	0	0	0
	Mean	.84	2.29	.64
	Max	12.50	29.00	4.00
Preservation photocopying	Min	0	0	0
	Mean	.17	.30	.20
	Max	1.00	1.75	1.00
Care of nonpaper media	Min	0	0	0
	Mean	.75	.56	.15
	Max	16.00	4.00	1.50
Other	Min	0	0	0
	Mean	.39	.89	.40
	Max	5.00	8.00	1.50
Total FTE	Min	0	0	0
	Mean	2.91	5.95	2.34
	Max	74.00	62.00	19.00

Activities		Other Units		
		Professional staff	Support staff	Student/ temp staff
Preservation administration	Min	0	0	0
	Mean	.65	.26	.34
	Max	9.55	2.00	4.00
Bindery & shelf preparation	Min	0	0	0
	Mean	.32	3.04	1.75
	Max	1.75	9.90	6.10
Conservation—general collections	Min	0	0	0
	Mean	.08	.66	.39
	Max	1.00	2.63	2.00
Conservation—special collections	Min	0	0	0
	Mean	.25	.60	.50
	Max	1.25	4.00	5.00
Mass deacidification	Min	0	0	0
	Mean	.07	.08	.08
	Max	1.00	1.00	1.00
Microfilming	Min	0	0	0
	Mean	.17	.42	.38
	Max	1.00	2.25	4.50
Preservation photocopying	Min	0	0	0
	Mean	.10	.12	.41
	Max	1.00	1.00	5.00
Care of nonpaper media	Min	0	0	0
	Mean	.19	.39	.77
	Max	1.00	2.00	5.50
Other	Min	0	0	0
	Mean	.18	.34	.14
	Max	1.00	2.69	1.00
Total FTE	Min	0	0	0
	Mean	1.08	3.40	2.20
	Max	9.55	13.20	10.50

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7. Please report permanent FTEs gained and lost since the beginning of FY1995 in the following preservation activities. Annotate positions gained with a plus sign (+) and positions lost with a minus sign (–). (n=73)

Activities		Preservation Unit		
		Professional staff	Support staff	Student/ temp staff
Preservation administration	Max Lost	-2.25	-1.00	-.18
	Mean	.20	.06	.03
	Max Gained	2.00	1.00	.25
Bindery & shelf preparation	Max Lost	-1.00	-19.00	-2.00
	Mean	.11	-1.06	.12
	Max Gained	2.00	3.50	2.00
Conservation—general collections	Max Lost	0	-7.00	-.70
	Mean	.62	-.14	.76
	Max Gained	3.00	3.00	4.00
Conservation—special collections	Max Lost	-.80	-4.00	0
	Mean	.71	-.03	.14
	Max Gained	6.00	2.00	.75
Mass deacidification	Max Lost	0	0	0
	Mean	.02	.15	.04
	Max Gained	.10	.75	.25
Microfilming	Max Lost	-6.50	-8.00	-.25
	Mean	-.59	-.65	.34
	Max Gained	1.00	2.00	2.50
Preservation photocopying	Max Lost	-1.00	0	0
	Mean	.08	.29	.04
	Max Gained	1.00	1.75	.25
Care of nonpaper media	Max Lost	-3.00	0	0
	Mean	-.22	.32	0
	Max Gained	1.00	2.00	0
Other	Max Lost	-.50	-1.00	-.50
	Mean	.55	.98	.40
	Max Gained	4.00	8.00	2.75

Activities		Other Units		
		Professional staff	Support staff	Student/ temp staff
Preservation administration	Max Lost	0	0	0
	Mean	.32	.43	.08
	Max Gained	1.00	1.80	.50
Bindery & shelf preparation	Max Lost	-.20	-3.00	-2.00
	Mean	-.03	-.06	.09
	Max Gained	.10	2.00	1.50
Conservation—general collections	Max Lost	0	-.20	0
	Mean	0	.38	.20
	Max Gained	0	2.50	1.20
Conservation—special collections	Max Lost	0	0	0
	Mean	.06	.25	.58
	Max Gained	.25	1.00	3.00
Mass deacidification	Max Lost	0	0	0
	Mean	0	.09	.03
	Max Gained	0	.50	.20
Microfilming	Max Lost	-.25	-1.00	-.25
	Mean	.04	.01	.12
	Max Gained	.40	.50	1.00
Preservation photocopying	Max Lost	-.25	-.25	-.25
	Mean	-.04	-.02	.03
	Max Gained	0	.25	.30
Care of nonpaper media	Max Lost	0	-.50	0
	Mean	.22	.18	.34
	Max Gained	1.00	1.00	2.00
Other	Max Lost	-4.10	-4.05	0
	Mean	-.34	-.18	.48
	Max Gained	1.00	1.60	1.25

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8. If you were to be able to secure new, permanent, preservation positions, in what program areas would they be added? (n=78)

Program Area	Professional staff	Support staff	Student/ temp staff	Unspecified staff
Conservation—general collections	20	27	2	7
Conservation—special collections	18	21	3	4
Preservation administration	17	7		4
Digital projects	7	15	2	6
Care of nonpaper media	5	10		2
Microfilming	3	11	1	2
Bindery & shelf preparation	1	8		1
Special projects	1	1		
Monitoring collection conditions	1			
Preservation—special collections	1	1		2
Preservation photocopying		6	1	2
Mass deacidification		4		1
Preservation—general collections		1		
Brittle book processing		1		
End processing			1	
Collections care				1

Notes: Other responses included, "staff are at optimal levels but grant-funded positions need to be solidified with hard money," "before adding new positions would like to move at least half of the grant-funded microfilming staff on to regular budget," and "more students!"

9. What percentage of total funding for preservation activities (as listed in question #6) comes from the following sources?

	Operating Funds %	Grants %	Endowment %	Other %
Min	1	0	0	0
Mean	87	14	7	7
Max	100	60	50	52
n=	83	37	31	31

Digitization Staffing and Funding

10.   Please report FTEs currently dedicated to the following digitizing activities and footnote positions that are grant funded. Include only digitization that results in items for a digital library. (n=71)

Activities		Preservation Unit		
		Professional staff	Support staff	Student/ temp staff
Project management	Min	0	0	0
	Mean	0	0	.01
	Max	0	0	.05
Selection	Min	0	0	0
	Mean	.40	.29	0
	Max	2.00	1.00	0
Digitizing	Min	0	0	0
	Mean	.12	.03	.03
	Max	1.00	.20	.25
Metadata creation	Min	0	0	0
	Mean	.22	.94	.40
	Max	1.00	7.00	1.00
Post-scan processing & quality control	Min	0	0	0
	Mean	.32	.25	.13
	Max	2.00	1.00	.66
Other	Min	0	0	0
	Mean	.11	.56	.16
	Max	.50	3.00	.66
Total FTE	Min	0	0	0
	Mean	.53	1.00	.30
	Max	5.00	9.00	2.00

Activities		Other Units		
		Professional staff	Support staff	Student/ temp staff
Project management	Min	0	0	0
	Mean	.02	.25	0
	Max	.10	1.58	0
Selection	Min	0	0	0
	Mean	1.16	.40	0
	Max	10.00	2.00	0
Digitizing	Min	0	0	0
	Mean	.48	.48	.04
	Max	4.00	2.25	.25
Metadata creation	Min	0	0	0
	Mean	.40	1.08	1.17
	Max	3.00	4.00	5.25
Post-scan processing & quality control	Min	0	0	0
	Mean	1.12	.91	.55
	Max	18.00	4.00	2.00
Other	Min	0	0	0
	Mean	.81	.82	.48
	Max	14.00	7.00	3.00
Total FTE	Min	0	0	0
	Mean	2.58	1.88	1.23
	Max	48.00	17.00	6.75

11. What percentage of total funding for digitizing comes from the following sources? (n=68)

	Operating Funds %	Grants %	Endowment %	Other %
Min	0	0	0	0
Mean	55	52	10	19
Max	100	100	95	100
n=	62	43	21	24

Program Management

12. Indicate your level of satisfaction with any of the following preservation and digitizing services that are contracted (in whole or in part) to commercial vendors at the present time. (n=87)

1=Very satisfied   2=Satisfied   3=Dissatisfied   4=Very dissatisfied

	Mean
Metadata creation and other cataloging	1.9
Shelf preparation (labeling, plating)	1.7
Scanning	1.6
Digital photography	1.6
OCR processing	1.6
Commercial library binding	1.5
Conservation treatment	1.4
Microfilming	1.4
Deacidification	1.3
Other	1.4

13. Indicate your level of satisfaction with any of the following inter-institutional preservation and/or digitizing projects in which you have participated during the past 3 years. (n=63)

1=Very satisfied   2=Satisfied   3=Dissatisfied   4=Very dissatisfied

	Mean
Disaster preparedness	1.6
Microfilming	1.5
Preservation training	1.5
Digitizing	1.5
Other	1.6

Preservation Studies

14. Have you conducted a collections condition survey of any kind within the past 3 years?

Yes   21   24%
No   66   76%

15. Do you regularly monitor environmental conditions in library buildings, using either hygrothermographs, dataloggers, or other instruments?

Yes   77   89%
No   10   11%

Method of monitoring	n	%
Hygrothermographs	49	64%
Dataloggers	28	36%
Temperature and humidity sensors	16	21%
Thermostat	3	4%
Facilities management	2	3%
Handheld digital devices	2	3%
Light meters	2	3%
Database	1	1%
Moisture monitors	1	1%
Sticky traps	1	1%
Temperature and humidity controls	1	1%
Thermometer	1	1%
Visual checks	1	1%

Location of monitoring	n	%
Special collections	39	51%
Storage	18	23%
Archives	10	13%
Stacks	7	9%
Branch or subject library	6	8%
All buildings	4	5%
Rare books	4	5%
General collections	3	4%
Main library	3	4%
Exhibits	2	3%
Government documents	1	1%
Microforms	1	1%
Processing	1	1%
Reading room	1	1%
Research collections	1	1%
Special formats	1	1%

Frequency of monitoring	n	%
As needed/when problem suspected	14	18%
Constant/ongoing	7	9%
Daily	2	3%
Weekly	2	3%
Irregularly	2	3%
Several times per year	1	1%

Note: One institution that responded "no" is participating in a pending cooperative grant proposal that includes environmental monitoring.

16. Have you made significant improvements in environmental conditions in library buildings over the past 3 years?

Yes	53	61%
No	34	39%

Aspect improved	n	%
Building construction or renovation	16	30%
HVAC	12	23%
Climate control	7	13%
Environmental control	7	13%
Fire suppression	5	9%
Humidity control	4	8%
Light levels	4	8%
Roof replaced or repaired	4	8%
Air conditioning	2	4%
UV light filters installed	2	4%
Eating & drinking in library more strictly controlled	1	2%
"Elephant trunk" for removing toxic fumes from lab	1	2%
Flood recovery	1	2%
Pest management	1	2%
Stacks crowding	1	2%
Water seepage controlled	1	2%
Window shades installed	1	2%

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| Location improved	n	%
Special collections	11	21%
Branch or subject library	9	17%
Main library	5	9%
Archives	2	4%
Rare books	2	4%
Storage	2	4%
All libraries on campus	1	2%
Audiovisual services/nonprint materials	1	2%
Conservation treatment facility	1	2%
Stacks	1	2%
Undergraduate library	1	2%

Note: Three of the libraries that responded "no" plan to improve their environmental conditions. One will improve their HVAC system. One will balance their air-handling system, install UV light filters on all lights, and install new lights in the stacks that can be turned off when not in use. One will participate in a new PEM field trial survey sponsored by the Image Permanence Institute.

17. Within the past 3 years have you conducted any in-depth study of products, technologies, or methods that might be useful to other preservation programs?

Yes	17	20%
No	70	80%

Responding Institutions

University of Alabama
University of Alberta
Arizona State University
Auburn University
University of British Columbia
Brown University
University of California-Berkeley
University of California-Davis
University of California-Irvine
University of California-Los Angeles
University of California-Riverside
University of California-San Diego
University of California-Santa Barbara
University of Chicago
University of Cincinnati
University of Colorado
Colorado State University
Columbia University
Cornell University
Dartmouth College
University of Delaware
Duke University
Emory University
University of Florida
University of Georgia
Georgia Institute of Technology
University of Guelph
University of Houston
University of Illinois
University of Iowa
Iowa State University
Johns Hopkins University
University of Kansas
University of Kentucky
Laval University
Library of Congress
Louisiana State University
McMaster University
University of Massachusetts
University of Miami
University of Michigan
Michigan State University
University of Minnesota
University of Missouri

National Agricultural Library
National Library of Canada
National Library of Medicine
University of Nebraska-Lincoln
University of New Mexico
New York Public Library
New York State Library
New York University
University of North Carolina
North Carolina State University
University of Notre Dame
Ohio University
Ohio State University
University of Oklahoma
Pennsylvania State University
University of Pittsburgh
Purdue University
Queen's University
Rice University
University of Rochester
Rutgers University
University of Saskatchewan
Smithsonian Institution
University of South Carolina
University of Southern California
Southern Illinois University
State University of New York at Buffalo
Syracuse University
Temple University
University of Tennessee
University of Texas
Texas A&M University
Texas Tech University
University of Toronto
University of Utah
Vanderbilt University
University of Virginia
Virginia Tech
University of Washington
Washington University
Wayne State University
University of Western Ontario
University of Wisconsin
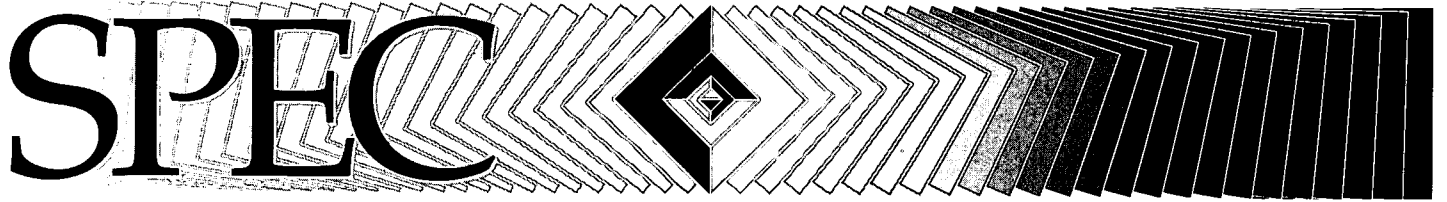
SPEC

REPRESENTATIVE DOCUMENTS

ASSOCIATION OF RESEARCH LIBRARIES

OFFICE OF LEADERSHIP AND MANAGEMENT SERVICES

Policy and Procedure

ARIZONA STATE UNIVERSITY LIBRARIES

HOME • CATALOG • INDEXES • RESOURCES • SERVICES • HELP

Special Materials Group
Digitization Pilot Projects, Year 2

Welcome to the Special Materials Group's Digitization Pilot Projects web site. We have begun our second round of applications, preparatory to launching the second year of pilot projects.

This year, to assist you in the application process, we have assembled some helpful materials on this website, including:

- Last year's approved project proposals (current projects) - find out what we're working on now

- Preliminary documentation of the current projects - compare the project concept and cost projections in the original applications to actual outcomes described in the documentation

- This year's revised application form - print it out, type it up, and submit it to Lois Schneberger (Mail Code 1006)

The deadline for submission of completed applications is February 15th, 1999. The committee will select projects and notify the applicants of approval by March 15th.

One purpose of the pilot project process is to increase our knowledge base and use of technologies for digital delivery of library materials. We encourage applicants to propose projects that make creative use of familiar technologies or require equipment and/or software that is not currently used in the Libraries. Another goal is to educate SMG member departments about digitization technologies and the costs of "going digital." Toward that end, we recommend that you research peer institutions' digitization experiences to help you in conceiving your project and writing your application proposal. If you find web sites that are relevant to your project proposal, please include the URLs in the Project Description section of your application form.

If you have questions not answered by the materials available on this site, please contact Rob Spindler (965-3145) or Scott Herrington (965-9087).

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Arizona State University Libraries
PO Box 871006
Tempe AZ 85287-1006
(602) 965-6164

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URL: http://www.asu.edu/lib/smg/index.htm

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http://www.asu.edu/lib/library/smg/digitapp.htm

APPLICATION
DIGITIZATION PROGRAM PILOT PROJECT YEAR 2
ARIZONA STATE UNIVERSITY LIBRARIES

Project Title:

Applicant/Unit Name:

PROJECT DESCRIPTION AND CONTENT:

Brief project description:

Principal media to be digitized:
(e.g. photographs, maps, etc. If many media will be scanned please describe the variety of media present, also indicate presence and estimate percentage and dimensions of oversize materials):

Estimated quantity or volume of materials to be digitized:
(i.e. Pages of text, number of photographs, maps or drawings, number and duration of audio or video items)

Copyright Status of materials to be digitized:

Anticipated Auxiliary Needs:

- LIST (e.g. programming):

- Original Cataloging (e.g. data entry, indexing):

- Preservation (e.g. document cleaning, rebinding):

- Other Costs:

Resource Needs:
(Describe the resources and staff you believe you need to conduct the project)

Intended Output Location	Format	Resolution	Media	Compression	Storage	
Backup Files:						
Local Use Files:						
Thumbnails/Web Display Files:						
Customer Orders:						

View sample completed table

TECHNICAL CONSIDERATIONS:

Answers to the next three questions may need to be based on information derived from similar projects at other institutions.

Estimated average file size for each file:

How will the digital files be used? Will the digital files be maintained permanently?

How will navigation and bibliographic access to the digital files be achieved?

JUSTIFICATIONS:

PRESERVATION

Potential Justifications

- Large number of users of original objects
- Reproduction damage e.g. fragile or oversized
- Cost effective method vs. analog reproduction or conservation treatment (?)
- Space savings
- Physical damage, e.g. brittle material

SCORE: _____

Possible range: 0-20

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UNIQUENESS OF MATERIAL

Potential Justifications

- Uniqueness of individual objects
- Collective uniqueness
- Results in unique combination of information resources

SCORE: _____

Possible range: 0-20

ACCESSIBILITY

Potential Justifications

- Large number of simultaneous users/students
- Less staff intervention
- Enhanced virtual bibliographic instruction
- Display contextual relationship between information in different formats
- Physical proximity/geography
  - On/off campus
  - East/West campuses
  - Branch libraries
  - Other ASU sites
- Enhanced navigability
- Extended education

SCORE: _____

Possible range: 0-20

PRINCIPAL AUDIENCE

Potential Justifications

- Undergraduate instruction

- Graduate instruction and research

- Faculty curriculum development and research

- Alumni

- Governmental agencies

- Professional research

- Corporate collaboration

- General public

SCORE: _____

Possible range: 0-20

PROJECT SIGNIFICANCE

Potential Justifications

- Supports academic programs of distinction

- Collection of high visibility/high demand

- Only way to acquire a collection is digital copy

- UL 2000 relevance

- Intercollegiate/inter-institutional cooperation

SCORE: _____

Possible range: 0-20

Please comment on this survey:

Columbia University Libraries
Policy for Preservation of Digital Resources

DRAFT 6/29/00

1. Statement of CUL policy for preservation of digital resources

According to the Columbia University Libraries Mission Statement (7/22/93):

> The Columbia University Libraries provides Columbia faculty, students, and staff with access to information in all subject areas related to the University's academic mission and its goals. The Libraries embraces its time-honored obligations of collecting, preserving, and providing access to collections, not only for the Columbia community but also for scholars and students from throughout the world who require access to the Libraries' unique materials.

Policy:

Digital resources are part of the CUL collections and subject to the same criteria for selection and retention decisions. As such, they are included under the CUL preservation policy: ensuring that the collections remain available over the long term, through prevention of damage and deterioration; reversing damage where possible; and, when necessary, changing the format of materials to preserve their intellectual content (3/2/94).

As with other parts of the collections, decisions about preservation are made by selectors, curators, and bibliographers as experts on the value of the content, in consultation with the relevant technical experts, including Academic Information Systems, the Library Systems Office, and Preservation. Priorities for preservation action are based on this Policy, the CUL Strategic Plan, and available resources.

For digital resources deemed to be of long-term value, preservation can be defined as actions needed to assure enduring access to the full content of those resources over time. Content has wider implications than simply assuring that a given image can be accessed. Thus, hierarchical and structural relationships among the files (e.g. the pages of a book) must be preserved as well as the files themselves.

Digital resources may exist in multiple versions. CUL is committed to preserving the archival version: the fullest, highest-quality available version of the resource, whenever possible; and the descriptive, structural, and administrative metadata associated with it.

Scope of preservation responsibility:

1. Primary responsibility for long-term retention and management by CUL/AcIS.

   a. Digital resources created by CUL for which no other versions exist, and deemed to be of long-term value.
   b. Digital versions of resources reformatted by CUL, and deemed to be of long-term value in digital form.
   c. Unique digital resources which are acquired by CUL (through donation or purchase) as parts of archival/manuscript collections and which are unlikely to be preserved anywhere else.
   d. Digital records (e.g. bibliographic records, personnel records) deemed of long-term value and/or essential to CUL's functioning, and not preserved through any other arm of the university.

2. Secondary responsibility for working cooperatively within CU and externally through consortial action, licensing agreements, etc. to assure that someone (possibly but not necessarily CUL/AcIS) carries out preservation of appropriate digital resources to assure that CU faculty, staff, and students will have adequate ongoing access to these resources.

   a. Digital resources created at CU outside of the Libraries but considered to be part of the digital library (EPIC ventures, others) and of long-term value.
   b. Digital resources purchased/licensed by CUL, with primary emphasis on resources which exist in digital form only.

Frequency with which preservation/retention policy for digital materials will be updated:

This policy will be reviewed by at the beginning of each academic year to assure timely updates as technology and experience mature, or more often if need arises.

2. **Statement of CUL's commitment to lifecycle management**

   CUL is committed to lifecycle management of its digital resources. Guidelines and procedures for each stage have been or are being developed, and are reviewed as technology changes or other need arises.

   ➤ Development of preservation strategies, including consideration of:
   - Degree of integration with storage, backup, and preservation for non-digital library resources.
   - Development and use of decision-making tools (e.g., risk analysis, usage monitoring, probability of loss calculations, cost models, etc.).
   - Maintenance strategies (backups - online and/or offline, monitoring, refreshing, redundancy through mirror sites or caching, etc.).
   - Survival strategies (migration, emulation, archeology, etc.).

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- Reliance on outside consulting and archiving services, if any, contract negotiation, etc.

➤ Selection for digitization and reselection for retention:
  - Primary: based on institutional mission, needs and priorities, including proper selection at project outset (related to long-term institutional mission and linked to conversion guidelines): see Selection Criteria for Digital Imaging Projects (9/97), http://www.columbia.edu/cu/libraries/digital/criteria.htm.
  - Secondary: based on regional, national, consortial, and international responsibilities.

➤ Conversion guidelines:
  - CUL follows relevant standards where they have been established and best practice for digital conversion, as documented by Library of Congress, the Research Libraries Group (RLG), the Digital Library Federation (DLF), and other relevant bodies.
  - See: Technical Recommendations for Digital Imaging Projects (1997), http://www.columbia.edu/acis/dl/imagespec.html.

➤ Metadata creation and management (unique IDs and other descriptive, structural and administrative metadata, including ownership/rights management):
  - CUL follows relevant standards where they have been established and best practice for metadata creation and management, as documented by Library of Congress, RLG, DLF, and other relevant bodies.
  - Digital resources deemed to be of long-term value are tracked through the Master Metadata File (MMF). See: CU Master Metadata File, http://www.columbia.edu/cu/libraries/inside/projects/metadata/.

➤ Storage (online, offline, redundancy recommendations, etc.):
  - CUL follows relevant standards where they have been established and best practice for storage, as documented by Library of Congress, RLG, DLF, and other relevant bodies.
  - The archival version of the digital resource is preserved in a lossless, non-proprietary format, whenever possible.
  - Storage plan for primary responsibility materials:
    1. Resources currently in use: kept online with regular backup, refreshment, and migration.
    2. Whether online or not: all archival versions (highest resolution, fullest capture, lossless compression) are written to approved storage media and stored off-line in the Library Systems Office (LSO), with a schedule for regular refreshment, and migration.
    3. For archival versions which are not currently online: a duplicate off-line copy is created for storage at a different site.
    4. All versions, online and offline, are tracked through the MMF.

➤ Access arrangements (database management, Web interface, access reliability, etc.):
  - CUL follows relevant standards where they have been established and best practice for access arrangements, as documented by Library of Congress, RLG, DLF, and

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other relevant bodies.

3. Statement of CUL's resource management policies and plans

As stated in the Six-Year Plan for the Libraries and AcIS (May 1999), the digital library is the primary on-line information interface for the University, delivering scholarly, instructional, research, administrative and personal information. The University is committed to supporting all of the operations of the digital library, including preservation. Resource management for preservation of digital resources includes:

- Technical infrastructure (equipment purchases, maintenance and upgrades, software/hardware obsolescence monitoring, network connectivity, etc.).
- Financial plan (strategy and methods for financing the digital preservation program, commitment to long-term funding).
- Staffing infrastructure (including hiring and ongoing training).
- Rights management.

4. Statement related to regional, national, consortial, and international responsibilities

Whenever it is proposed that digital resources created by CUL as part of a cooperative or consortial effort, and deemed to be of long-term value, should be preserved by another institution or organization, CUL will evaluate their capacity to provide long-term access to digital files, metadata, and functionality in order to assure that the resources will be preserved at least as well as they would be by CUL. Issues which must be taken into account include:

- Shared obligations and cooperative preservation.
- Information sharing.
- Technology support (e.g., reuse of same migration paths and strategies by others; following emerging common/recommended practice).
- Development of minimal standards for capture, management, and maintenance (to enable efficient strategies).

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Technical Recommendations for Digital Imaging Projects

Prepared by the Image Quality Working Group of
ArchivesCom, a joint Libraries/AcIS committee.

Last Revised April 2, 1997

URL: http://www.columbia.edu/acis/dl/imagespec.html

Table of Contents

Introduction

This document provides recommendations for image quality, file formats, and other capture and storage issues when converting paper, photographic and other physical materials into digital form. Additional documents on the selection of materials for digitization, on how to describe and index the materials being digitized, and on digital library access mechanisms will be added in the future.

These documents are intended for use by faculty, library and computing staff as a guideline for image presentation using the Digital Library. Recommendations have been made based on lessons learned here at Columbia University as well as elsewhere. We recommend you speak to a Library or AcIS staff member (AcIS Help Desk, 854-1919, or e-mail to consultant@columbia.edu) before beginning an imaging project.

The Quick Guide provides a brief overview of file formats, resolutions, pixel depth, etc., with specific recommendations for conversion based on the type of the original documents.

The Technology Summary provides additional definitions, technical details, and capabilities available today to display images using the current Columbia Digital Library resources.

References included at the end of this section provide much greater detail on digital image conversion, file formats, and pointers to sample projects.

Sample Sites include pointers to on-campus projects that provide file format and presentation examples for on-screen and printing purposes.

Advantages of Digital Images

Storing two-dimensional materials in digital formats offers a number of advantages. (Ester, 1996, pp. 2-4)

- Originals may be deteriorating, and digital images will not deteriorate physically or chemically over time.
- Digital images permit identical reproduction quality from copy to copy and from generation to generation.
- Digital images may be manipulated easily, far more easily than by photographic means.
- Digital images are easily linked to textual descriptions and catalog records.
- Access is greatly improved, using standard Internet technologies and existing campus infrastructure.

Quick Guide

Different original media types will require different digital conversion techniques as well as different file storage formats. This is an area that is evolving, as both conversion techniques improve (better scanners and digital cameras) and as new file formats develop. The following chart represents a set of recommendations derived from national digital library recommendations (Reilly, 1996) and the Columbia large maps project (Gertz, 1994-1995, and Gertz 1996).

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Media Type	Conversion Method	Resolution	Archive File Format	Screen Presentation Format	Print Presentation Format
Black & White Text Document	Flatbed Scanner or Digital Camera	1-bit, 600 dpi	TIFF w/CCITT Fax 4 Compression	GIF, 4-bit, 120 to 200 dpi	Acrobat (PDF), 1-bit, 300 or 600 dpi
Illustrations, Maps, Manuscripts, etc.	Flatbed Scanner or Digital Camera	8-bit grayscale or 24-bit color, 200 to 300 dpi	TIFF	Multiple JPEG, 24-bit, 512x768, 1024x1536, 2048x3072, Quality Level 50	JPEG, 24-bit, 2048x3072, Quality Level 50-100
3-dimensional objects to be represented in two-dimensions	Digital Camera	24-bit color, 200 to 300 dpi	TIFF	Multiple JPEG, 24-bit, 512x768, 1024x1536, 2048x3072, Quality Level 50	JPEG, 24-bit, 2048x3072, Quality Level 50-100
35mm Black&White & Color slide or negative	PhotoCD or Slide Scanner	24-bit, 2048x3072	PhotoCD or TIFF	Multiple JPEG, 24-bit, 512x768, 1024x1536, 2048x3072, Quality Level 50	JPEG, 24-bit, 2048x3072, Quality Level 50-100
Medium to Large Format photograph, slide, negative, transparency or color microfiche	ProPhotoCD or Drum Scanner	24-bit, 4096x6144	PhotoCD or TIFF	Multiple JPEG, 24-bit, Quality Level 50	JPEG, 24-bit, 4096x6144, Quality Level 50-100
Black & White Microfilm	Microfilm Scanner	1-bit 600 dpi	TIFF w/ Fax 4	GIF, 4-bit, 120 to 200 dpi	PDF, 1-bit, 300 or 600 dpi
		8-bit, 300 dpi	TIFF	GIF, 8-bit 120 to 200 dpi	PDF, 8-bit, 300 or 600 dpi

Explanations and Definitions

Use of Film Intermediaries

Scanning can be done directly from the item or a film intermediary can be made and scanned. Film intermediaries include most commonly 35 mm slides, 4 x 5 transparencies, microfilm, and single-frame microfiche. If properly made and stored, the film intermediary can act as a preservation copy of the item.

The quality of the intermediary will have a direct impact on the quality of the digital image. If the intermediary is poorly made, scratched, faded, or out of focus, the scanned image will be inferior. If the intermediary is of high quality, the scanned image will normally also be high quality. It is best to use camera negatives whenever possible. Every time a slide or other type of film is duplicated, it loses detail and resolution, and the resulting scan is poorer quality.

In general, it is better to work from a negative than from a positive not only because of generational loss but because the negative provides a smoother curve in the dynamic range, so that highlights and shadows are handled better (Ester, 1996).

Recommendations

- **Film intermediary already exists** - If a high quality film intermediary already exists, it can be cheaper and easier to scan it rather than the original item. It will also save wear and tear on the original item.
- **Oversize items and artifacts** - Items too large for the flatbed scanner will require film intermediaries, as will 3 dimensional objects. Large items are better filmed as transparencies or microfiche.
- **Fragile items** - Film intermediaries should be made for any artifacts or documents too fragile to put through the scanner.
- **Printed books** - It is cheaper to make microfilm and then scan the film than to make film and then also scan the book directly. For printed books where black and white pages are the majority, and where a preservation copy is desired, it is recommended that microfilm be made and then scanned. Pages needing color or gray-scale can be separately scanned directly and then substituted for the bi-tonal images.

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Image Quality for Permanent/Archival Capture

When converting an original to digital form, a high-quality *archival* digital image should be created which "safeguards the long-term value of images and the investment in acquiring them" (Ester 1996, p11). For presentation, other images may be copied from this archival quality image and stored in different formats and quality levels, the most common being on-screen and printer presentation formats. The following sections describe our recommendations for archival quality capture.

Tonality (pixel depth or bit-depth)

Bit-depth concerns the number of bits used to convey tonality for each pixel; that is, black and white, gray- scale, or color. In general, the more bits per pixel, the larger the file size.

- **1-bit or Bi-tonal** - a 1-bit pixel has two possible values, black or white. The scanned image has no shading or gray. Bi-tonal scanning produces the smallest file.
- **8-bit Gray-scale** - provides 256 shades of gray ranging from pure white to pure black.
- **24-bit Color** - provides a tonal range of about 16 million different colors. Color scanning produces quite large files.

Recommendations

- **Bi-tonal** -Because this allows for no shading, it is recommended primarily for modern printed books without illustrations line art which has little or no shading
- **Gray-scale** - Has shading in tones of gray only; recommended for black and white photographs, half-tone illustrations, other types of continuous tone illustrations, handwritten and typescript manuscript and archival materials which are nominally black and white but which actually contain shading and varieties of ink density and paper tonality. The older the document, the more likely that color rather than gray-scale may be appropriate.
- **Color** - Recommended for any materials with color which should be maintained for historical or esthetic reasons or because the color conveys information

Resolution (dots per inch)

In digital images, resolution typically refers to the number of horizontal and vertical pixels that make up the image. For example, 512x768 refers to 512 pixels across by 768 pixels down. DPI refers to dots per inch, which typically refers to the number of pixels per inch stored by the digital file. DPI is used in several ways. It refers to the number of pixels or dots captured per inch from the original material. It also is used to describe the number of pixels per inch on computer displays and the output quality of printers. These two senses are **NOT** the same. In this section, we are referring only to capture, which provides us with an *effective* number of dots per inch relative to the original. Note that when using film intermediaries, careful calculations must be made in order to determine the *effective* dpi of the source material. For instance, a document 10" across scanned at 600 dpi requires 6000 pixels. If the document is reproduced as a microfiche with an image that is 4" across, it will take 1500 dpi to achieve the same 6000 pixels and the same level of resolution. The Large Maps Report (Gertz 1994-5) goes into this in much greater detail.

Selection of the optimum resolution starts with a determination of what is the smallest meaningful element that must be legible in the end product. When dealing with textual materials, this determination is relatively easy: find the smallest letter, numeral, diacritic, or symbol that must be clearly distinguished. In printed books the smallest textual element is often the superscript footnote numbers or letters with diacritics; with handwritten documents there is a great deal of variation. It is much more difficult to determine what the smallest meaningful element in a photograph or artwork is. In part it depends on who will use the scanned image and in what way. A non-specialist may look at a landscape photograph casually, while a geologist may need to be able to distinguish the stratigraphy of the cliff in the background.

Legibility results from a combination of resolution and bit depth. Resolution concerns the number of pixels or dots per inch (dpi) -- the more pixels, the more detail is captured. Note that the higher the resolution, the larger the file size.

Pixel depth complicates this simple relationship, because an 8-bit pixel captures more information than a 1-bit pixel, and a 24-bit pixel captures even more. This means that it may be possible to use lower resolution with gray-scale and color than with bi-tonal to achieve the same degree of legibility.

Recommendations

- **Bi-tonal** - Normal modern printed black and white text should be captured at 600 dpi in order to assure that all symbols, italic text, and other fine details are captured. Line art should be captured at 600 dpi if lines are fine and close together; if lines are bold and widely separated, lower resolution may suffice. Testing will be needed.
- **Gray-scale** - Handwritten documents, typescripts, half-tones, and similar materials should be captured at 300 dpi gray-scale unless all of the text is fairly large, when a lower resolution may suffice. Testing will be needed. Black and white photographs should be tested at 300 dpi to see if it will suffice; higher resolution may be needed for photos with significant small details.
- **Color** - Printed documents such as maps and posters may be able to be captured fully at 200 dpi. Testing will be needed. Color photographs should be tested at 300 dpi to see if it will suffice; higher resolution may be needed for photos with significant small details. Historical artifacts like papyri may require 600 dpi if extremely fine details of paper grain, etc. must be captured.

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File Formats (based on Reilly, 1996, and Gertz, 1996)

We recommend the following image formats for archival storage and for presentation purposes:

- **TIFF w/CCITT Fax 4 Compression** - ideally suited for black and white text documents, this format provides a high level of detail (600 dpi), combined with a small file size (less than 100 kilobytes for 5"x8" text page). It may be used as an archival file format.
- **PhotoCD** - well-suited for 35mm slide and 35mm negatives, PhotoCD provides up to 6 resolutions (up to 4096x6144), color management, and a storage medium that works on all major computer platforms. The PhotoCD format may be used as an archival file format.
- **TIFF w/LZW Compression** - A 24-bit, lossless (no information lost) compression format commonly used by Adobe PhotoShop, this TIFF format may be used to store color images, and may be used as an archival file format. With lossless compression, the picture quality of the compressed file is exactly the same as the original, uncompressed file.
- **JPEG** - A 24-bit, lossy (some information lost) compression format which is well-suited for screen and print presentation. JPEG is supported by all major computer platforms and by Internet web browsers. With lossy compression, the picture quality of the compressed file is reduced when compared to the original file, and can not be restored, except by going back to the original. The advantage is that the file sizes are much smaller, and image quality is acceptable in most cases. It is not acceptable as an archival file format.
- **GIF** - An 8-bit, lossless compression format which is well-suited for low resolution screen display of images. GIF is often used for image thumbnails, screen versions of text documents, and is supported by all major computer platforms and Internet web browsers.
- **PDF** - Adobe Acrobat Portable Document Format provides a convenient way to view and print images at high resolution, and may also be used to group several files into chapters and books.

Storage Issues

Digital image file formats may require a great deal of physical storage, especially full-color files intended for archival storage purposes. The chart below compares archival and presentation file formats, showing how the use of compression can greatly reduce the amount of space needed to store presentation quality images. The file sizes are estimates for 35mm color slides or negatives:

File Format	Resolution, bit-depth	File size
TIFF	2048x3072, 24-bit	18,000 Kilobytes
PhotoCD	2048x3072, 24-bit	4,000 Kilobytes
JPEG	2048x3074, 24-bit	400 Kilobytes (medium quality)

Conversion Methods

Regardless of whether digital conversion is done in-house or outsourced, great care should be taken to ensure that the conversion process is done properly and that it results in uniform, high-quality digital files. If the conversion process is outsourced, the vendor should provide sample results, and all work should be inspected for quality by in-house staff. If the work is to be done in-house, it is important to read the references below which include information about scanning, photography, and quality control methods.

Gray and Color Standard Bars

These bars are narrow strips which contain shades of gray from white to black or standard color blocks, plus an inch or meter scale. Their purpose is (1) to give the viewer the scale of the item and (2) to allow the scanner and the viewer to calibrate equipment to permit best possible viewing and printing with accurate color.

When scanning from original objects in gray-scale, the gray standard bar should be included with every scan; when scanning from originals in color, both gray and color bars should be used, since the color bar is used for color accuracy while the gray bar is used to deal with highlights and shadows. When scanning from film intermediaries, the slides or transparencies should be shot with color and gray standard bars in the same way as the originals. Placement of the bars should be consistent to allow them to be automatically cropped out of derived images for certain display purposes, and to minimize the amount of space they consume.

If color accuracy is critical, computer equipment with color accurate displays is also needed.

References

Ester, Michael. *Digital Image Collections: Issues and Practice.* Washington, D.C. Commission on Preservation and Access, 1996. To order a copy, see
http://www-cpa.stanford.edu/cpa/publist.html

Gertz, Janet. *Oversize Color Images Project, 1994-1995.* Washington, D.C. Commission on Preservation and Access, 1995. HTML version found at
http://www.columbia.edu/dlc/nysmb/reports/phase1.html

Gertz, Janet. *Oversize Color Images Project Phase II, 1996.* HTML version found at
http://www.columbia.edu/dlc/nysmb/reports/phase2.html

Reilly, James M. *Recommendations for the Evaluation of Digital Images Produced from Photographic, Microphotographic, and Various Paper Formats.* Washington, D.C. Library of Congress National Digital Library Project, 1996. PDF copy found at
http://lcweb2.loc.gov/ammem/ipirpt.html

COLLECTION MANAGEMENT POLICY
III. Preservation

NATIONAL LIBRARY OF CANADA PRESERVATION POLICY

1.0. Purpose

1.1. The National Library of Canada Preservation Policy is one component of the Library's comprehensive Collection Management Policy whose objective is to provide an integrated set of policies dealing with the acquisition, preservation, and bibliographic control of collections. The policy also defines organizational roles and responsibilities associated with the various aspects of collection management.

The purpose of the National Library of Canada Preservation Policy is to provide a comprehensive statement on preservation at the National Library. The policy deals with all aspects of preservation and applies to all collections held by the Library.

As with other parts of the National Library of Canada Collection Management Policy, this policy provides direction to Library staff in carrying out the collection management responsibilities of the Library, in this case specifically the preservation responsibilities. It will also, in time, form the basis of communication with those outside the Library, concerning internal National Library preservation policies and activities. At this time, statements concerned with the external preservation role of the National Library are excluded from the policy.

This policy also identifies related departmental policies, and those documents which contain the detailed interpretations and procedures derived from it. Implementation of the policy is achieved through the normal channels of the National Library planning process.

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* Financial, personnel and general administrative services, including accommodation and security are provided to the National Library by the National Archives and operate as common services which are subject to an agreement between the two agencies for the functioning of these common services. Conservation services are provided to the National Library by the Conservation Branch of the National Archives. An agreement between the two agencies has been signed.

NATIONAL LIBRARY OF CANADA PRESERVATION POLICY

PRESERVATION RESEARCH is basic and applied research carried out for the purpose of improving and extending knowledge and techniques in the field of preservation of library collections.

5.0. Policy Statements

5.1. General Policy Statement

5.1.1. The National Library takes preservation measures to ensure the longevity of its collections.

5.2. Preservation of Collections

The National Library has identified three categories of collections:

Preservation Collection of Canadiana

5.2.1. The National Library preserves Canadiana through the existence of a separately housed preservation collection which consists in principle of one original copy of all Canadiana held by the National Library. The primary objective of this collection is to preserve Canadiana publications in all media.

Special Collections

5.2.2. The National Library preserves its special collections which are separately housed collections of library materials of exceptional rarity or value with concentration on particular subjects or formats. These collections are given distinct treatment in various aspects of library operations.

Service Collection

5.2.3. The National Library preserves its service collection to ensure that items are available for on-site and off-site use.

5.3. Specific Policy Statements

Accommodation

5.3.1. The National Library preserves its collections through the use of appropriate accommodation.[1]

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This is achieved by:

a) ensuring that architectural and building specifications for new construction and upgrades to existing buildings address preservation needs as defined in this policy

b) ensuring that any new construction or renovations to existing buildings meet those specifications

c) ensuring that all National Library buildings are maintained to continue to meet those specifications.

5.3.2. The National Library provides a stable and secure environment for its collections.[2]

This is achieved through the establishment and maintenance of specified levels of temperature, relative humidity, lighting, air quality, and vibration.

Security

5.3.3. The National Library provides security measures that ensure the protection of its collections.[3]

The primary purpose of these security measures is to prevent or reduce the risk of damage from fire, water, natural or man-made disasters, biopredation, war, theft and vandalism.

Disaster Preparedness

5.3.4. The National Library ensures that contingency plans and procedures are in place to prevent, react to and recover from emergency situations (resulting from fire, water, natural or man-made disasters, biopredation, war, theft and vandalism) that may have an adverse effect on its collections.[4]

Conservation

5.3.5. The National Library ensures that conservation measures are applied when required to items in accordance with Departmental standards and criteria.[5]

In accordance with conservation ethics, all treatments are judiciously minimal and, wherever possible, reversible. Conservation examination and treatment information is recorded and accessible. Appropriate conservation measures at the National Library are carried out in the following ways:

NATIONAL LIBRARY OF CANADA PRESERVATION POLICY

a) Mass treatments may be carried out where routine preventive treatments are appropriate.

b) Collection treatments may be carried out where similar items can be conserved as a group.

c) Conservation treatment will be carried out on individual items requiring special attention.

d) Commercial binding may be carried out on service collection print material.

e) Minor repair may be carried out on individual items when required.

Service

5.3.6. The basic policy statements[6] regarding the use of National Library collections are:

a) that the Preservation Collection of Canadiana is a restricted-use collection available on-site only under supervision and is not available through interlibrary loan

and

b) that the service collection is available for on-site use, by registered users, and off-site use through interlibrary loan.

5.3.7. The National Library in principle obtains one or more service copies or creates surrogates for service.

5.3.8. The National Library encourages the use of surrogates rather than originals for service in cases where the service originals are not suitable for regular use (such as rare or fragile items).

Subject to copyright legislation, surrogates may be created using microforms, photocopies, optical discs or other technologies.

Handling and Transportation of Collections

5.3.9. The National Library ensures proper handling of collections by staff and users.[7]

5.3.10. The National Library provides preservation training and information to all staff and provides handling guidelines to users.

Exhibitions

5.3.11. The National Library includes preservation factors in determining the selection of items and the frequency and duration of their use for exhibition purposes.

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NATIONAL LIBRARY OF CANADA PRESERVATION POLICY

Acquisition

5.3.12. The National Library considers physical condition a criterion in the acquisition of single items or collections.[8]

5.3.13. The National Library's ability to preserve single items or collections is a factor in determining whether or not to proceed with acquisition.

Collection Maintenance

5.3.14. The National Library monitors the condition of its collections on an on-going basis and takes action to replace individual items and to reduce the rate of deterioration through scheduled and systematic projects and other protective measures.

5.3.15. The National Library ensures that proper containers and storage facilities are used to protect its collections from damage as a result of the environment or handling.[9]

5.3.16. The National Library prevents infestation from biopredation by the use of pro-active measures.

5.3.17. The National Library cleans its collections on a systematic basis using appropriate methods of cleaning.

5.3.18. The National Library ensures that the shelving of its collections is organized to reduce unnecessary handling and damage to the items.

One way this is achieved is by utilizing a shelf occupancy of 65% for the service collection. The Preservation Collection of Canadiana utilizes a denser shelf occupancy.

Preservation Surrogates

5.3.19. The National Library takes measures to protect rare or unique collection items when inherent frailty or heavy use threatens their survival by creating surrogates for preservation purposes.[10]

Preservation Research

5.3.20. The National Library undertakes or supports preservation research to address problems encountered in the preservation of Canada's published heritage.

6.0. Relationships with Other Institutions

6.1. The National Library establishes productive working relationships with other institutions such as the National Archives and the Canadian Conservation Institute in order to address library preservation needs.

NATIONAL LIBRARY OF CANADA PRESERVATION POLICY

7.0. Other Departmental Policies

7.1. This policy is related to the following other National Library policies:

- *National Library of Canada Security Policy.* (to be developed)
- *Joint National Library/National Archives Disaster Contingency Plan* (to be developed) and *Disaster Reaction Team - Basic Response Procedures* (PSB). National Library of Canada, Draft 1988.
- *National Library of Canada Conservation Policy.* (to be developed)
- *National Library of Canada Commercial Binding Policy and Procedures.* (forthcoming)
- *Phase One Report of the Collection Management Policy - Services Policy Statement.* National Library of Canada, 1989.
- *Phase One Report of the Collection Management Policy - Acquisitions Policy Statement.* National Library of Canada, 1989.
- *National Library of Canada Policy Governing Loans to Libraries.* National Library of Canada, 1989.
- *National Library of Canada Preservation Microfilming and Photocopying Policy.* (to be developed)

8.0. Promulgation of the Policy

8.1. As one component of the National Library's comprehensive collection management policy, this policy will be communicated to all managers and staff as appropriate.

9.0. Monitoring and Review of the Policy

9.1. This policy will be monitored and reviewed to reflect other policy changes. As well, it will be reviewed annually to ensure it addresses current developments in the Library.

10.0. Audit and Programme Evaluation

10.1. The preservation programme throughout the institution will be the subject of an internal audit as part of the departmental audit cycle.

10.2. The preservation programme will be evaluated as part of the departmental programme evaluation cycle.

11.0. Roles and Responsibilities

11.1. All staff in all branches are responsible for implementing preservation policies and directives approved by the National Librarian. For details, see the attached document, *Roles and Responsibilities: A Supplement to the National Library of Canada Preservation Policy.*

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REFERENCES

1. The National Library will develop its standards for appropriate accommodation in the course of the project on the long term accommodation strategy which is currently underway. The forthcoming *National Library of Canada Long Term Accommodation Strategy* will take into consideration the following:

  - *Building Environmental Systems Study: Final Report.* Building Performance Division, Public Works Canada, 1987.
  - *National Archives of Canada - Architectural Program Gatineau Building.* National Archives of Canada, 1989.
  - *ASD Arc 6 and Hotline Procedure.* (forthcoming)
  - *Architectural Programme.* Canadian Museum of Civilization, 1983.

2. See the following:

  - *National Library of Canada Long Term Accommodation Strategy.* (forthcoming)
  - *The Museum Environment.* 2nd Edition. Garry Thomson. Butterworths: London, 1986.
  - *Recommended Storage Conditions for Holdings in Archives and Libraries.* K.B. Hendriks and G. Morrow. National Archives of Canada, 1985.

3. See the following:

  - *National Library of Canada Security Policy.* (to be developed)

4. See the following:

  - *Joint National Library/National Archives Disaster Contingency Plan.* (Draft - July 31, 1987)
  - *Disaster Reaction Team - Basic Response Procedures (PSB).* National Library of Canada, Draft 1988.
  - *ASD Arc 6 and Hotline Procedure.* (forthcoming)

5. See the following:

  - *National Library of Canada Conservation Policy.* (to be developed)
  - *National Library of Canada Commercial Binding Policy and Procedures.* National Library of Canada, May 1990.
  - *Code of Ethics and Guidance for Practice for Those Involved in the Conservation of Cultural Property in Canada.* International Institute for Conservation - Canadian Group, 1986.

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6. See the following:

- *National Library of Canada Proposal for the Replacement of Lost Material.* National Library of Canada, 1988.
- *National Library of Canada Research Facilities: Conditions of Use of Reading Room, Lockers, Study Rooms.* National Library of Canada, 1986.
- *Phase One Report of the Collection Management Policy - Services Policy Statement.* National Library of Canada, 1989.
- *Phase One Report of the Collection Management Policy - Acquisitions Policy Statement.* National Library of Canada, 1989.
- *UAP: A Programme to Improve National and International Provisions and Supply of Publications.* vol. 25. IFLA International Programme for UAP, 1983.

7. See the following:

- *National Library of Canada Care and Handling of Books.* (forthcoming - 1990)
- *National Library of Canada Exhibitions Guidelines.* National Library of Canada, 1987.
- *National Library of Canada Policy Governing Loans to Libraries.* National Library of Canada, 1989.
- *National Library of Canada Guidelines Governing Use of Materials by Individual Researchers at the National Library of Canada.* National Library of Canada, n.d.

8. See the following:

- *National Library of Canada Acquisitions Policy.* (forthcoming)

9. See the following:

- *National Library of Canada Long Term Accommodation Strategy.* (forthcoming)

10. See the following:

- *National Library of Canada Preservation Microfilming and Photocopying Policy.* (to be developed)

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National Library of Canada
Digitization Policy

EC97:07
rev. August 11, 1997

Policy Statement

The National Library of Canada focuses its digitization efforts on Canadiana. In doing this, the Library:

- broadens the range of retrospective Canadian materials accessible electronically

- increases access to these materials

- mainstreams digital materials in the same manner as other formats

- ensures adherence to appropriate standards

- collaborates with the library community and with other government departments and agencies.

This policy complements and is interpreted in conjunction with the National Library's policies relating to systems, collections management, publishing, exhibitions, and other relevant policies.

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National Library of Canada
Digitization Guidelines & Principles

rev. August 11, 1997

Background

One of the challenges faced by the National Library of Canada (NLC) and shared by its fellow cultural, information and educational institutions, is to contribute to and maintain a Canadian presence on the information highway. The NLC is using Web-based technology, as well as network-based products and services to modernize its program delivery and methods, and to play a more active and aggressive role in providing networked access to Canadian information. This role is consistent with the NLC's mission to build a world-class national resource to support the study, understanding and continued vitality of Canada's cultural heritage, and to facilitating access for all Canadians to national and worldwide networks of information resources.

With this in mind, the NLC has undertaken digitization[1] activities which seek to achieve a balance between two sets of goals : 1) to attract public attention, stimulate public interest in Canada and Canadians, and thus have an immediate impact on Canadian visibility on the information highway; and 2) to provide network access to Canadian information as well as ongoing support for research on Canada and Canadians.

Digitization projects are carried out by NLC personnel or through collaboration with external partners. The activities involve converting into digital form selected items / collections of heritage or research interest from NLC collections and those of partner institutions. Funding is provided by different sources including NLC.

Objectives of the NLC digitization program

The NLC's objectives are:

- to gradually build up a retrospective Canadiana collection in electronic form that can eventually become a resource for the study and appreciation of Canada and Canadians.

- through the availability of digitized tools, to promote and facilitate access to Canadian print publications that are unique and often difficult to access.

- through digitization, to promote and facilitate access to Canadian print publications that are rare, unique, or fragile.

- to ensure its own visibility and position itself as a key player in the use of new technology.

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[1] See "Definitions" at the end of this document.

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Guidelines and Principles

The following set of guidelines and principles apply to:

- digitization projects carried out on our premises, coordinated by our own personnel and based on our own items, products or collections.

- digitization projects carried on by partners outside our premises when involving our own collections.

- digitization projects carried out by external organizations or individuals wanting to digitize our collections, which are not in partnership with the NLC.

These guidelines and principles complement existing NLC policies / guidelines regarding electronic publishing, acquisition and cataloguing of networked publications, etc.

NLC digitization selection criteria

General direction

NLC will participate in the development of Canadian content through the conversion into digital form of selected items from its collections and through the creation of digitized products aimed at stimulating interest in the study of Canada and Canadians.

Specific directions

Projects will be selected in such a way as to achieve a balance between three types of initiative: (1) digitization of research tools; (2) thematic products; (3) digitization of complete works.

1. First priority will be given to digitizing research tools currently only available on site, and to which access is limited. These tools will be selected on the basis of the access they offer to Canadian works or subjects related to Canadian studies. When an existing digital research tool is part of a digitization project, but it cannot be networked, it will be migrated to ensure network accessibility.

2. Second priority will be given to thematic products that are either modular or open-ended in nature in order to ensure the progressive availability of clusters of digitized information on selected Canadian themes and subjects. Prior to project selection, consultations with staff and users should indicate that proposed projects are of interest to the general public, local communities,

students or researchers, and consequently should provide greater visibility for the NLC and its collections.

3. A third priority will be given to the digitization of *complete works* of Canadiana. Before going on to digitize complete works, the usefulness of the material once it is in digital form will be evaluated, through consultations with partners and stakeholders, in terms of real or expected demand and how much it can contribute to research. Under this category, preference will be given to the publications referred to by research tools digitized by the NLC, or to individual documents responding to the following conditions: they must be rare, unique, of limited access and with an acknowledged value for research.

Digitization on demand may be provided where appropriate providing the requestor has obtained the necessary copyright permissions in writing and pays any applicable NLC fees.

Duplication of effort with other institutions involved in the digitization of Canadiana items will be avoided where possible.

The documents, collections and types of materials chosen for digitization should normally support the promotion of, and access to, sectors in which we specialize, such as music, literature and Canadian history.

The fragile condition, rarity and inaccessibility of certain originals will be taken into account when selecting items for digitization.

Access

NLC will ensure that digitized material is as accessible as possible through the use of appropriate standards and approaches. In cases that the digitized material is at a partner's site rather than at the NLC site, access will be facilitated, and a preservation copy will be deposited at NLC.

Digitized documents will usually be made available to the public on site and through Web access.

Authorizations will be obtained from copyright holders before proceeding with digitization of copyright works:

- by NLC staff when the NLC is digitizing materials for its own projects;
- by individual requestors in the context of digitization on demand.

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NLC electronic products will be resident on the Library's server. Permission to reproduce documents at other sites will usually be given, after permission has been obtained by the requesting organization from the copyright owners.

Documents and collections digitized by the NLC will be made accessible through the use of search engines and navigation tools. Special attention will be given to digitizing items that will make all the material easier to use.

The results of the projects will normally reside on the NLC's Internet server, and will be catalogued in AMICUS. All NLC digitization projects will be noted in the list of Canadian library digitization projects on the NLC's web site.

Text created by the NLC will be provided in both official languages. Other digitized materials may remain only in the original language.

Conservation

In order to ensure that the Canadian published heritage in electronic form continues to be available to future generations, the NLC will take measures to ensure the short-term and long-term preservation of its digitized products. In support of this, when digitization is done at a partner's site rather than at the NLC, contractual or other arrangements with the partner will include deposit of the digitized material at NLC.

A national depository of Canadian publications in electronic form is needed and the NLC will be working toward the establishment of such a depository.

Partnership

The development of Canadian content on the information highway cannot be achieved in a vacuum. Partnerships with other cultural agencies, academic institutions and the private sector are essential. Roles must be flexible because the responsibilities of each partner will vary from one project to another.

Roles and responsibilities of the NLC

Depending on the projects considered and whether they form part of the NLC's internal initiatives or are part of joint digitization projects in which the NLC cooperates with other institutions, the NLC is called upon to play a variety of different roles: leader, trainer and consultant, author and editor, coordinator and facilitator.

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Definitions

Digitization is the process of converting the content of physical media (e.g. periodical articles, books, manuscripts, cards, photographs, vinyl disks, etc.) to digital formats.

At NLC, digitization results in a ***networked*** resource or item which is accessible through the NLC web site, and thus the Internet.

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Guidelines for Developing an SIL Digital Project

Every digital project will pass through at least four stages, moving from idea to proposal to approval and finally to implementation. This document provides guidance in the process.

STAGE 1: IDEA

Any SIL staff person may originate a project idea. You should present an idea for preliminary approval to your immediate supervisor. As the `originator' you should include in this informal proposal the idea, what prompts its suggestion and a description or list of its advantages.

STAGE 2: PROPOSAL

With supervisory approval to develop a full proposal, you should pursue individual informal conversations with as many SIL units as will have a part in the process. (See *List of Roles for SIL Digital Projects* for suggestions). Based on these conversations or written narratives you should draft a formal proposal containing two sections; content and technical issues, answering as many of the questions below *as are relevant to your proposed project*.

Content

What is significant about the original material and the proposed digital product? Will it complement other digital resources? Will the product have more value than the source material because of indexing, links, finding aid, availability or other features? What audience will find it most useful?

Does the original contain unique materials never before generally available? Is the material accurate, representative, insightful and/or useful for research? Does it link with current scholarly concerns? Is the topic sensitive to specific groups? Are there restrictions to the use of the material? (check with PUBLICATIONS, SI STAFF, EXTERNAL SCHOLARS, OESE depending on content)

Define any intellectual aids to be developed. Will the materials require significant contextualizing such as commentary, translations, introductory material, etc.? If these are required, who will do the work? Will the materials require indexing and/or searching tools? Will there be special needs such as multiple scans, keying in of foreign terms? Can the project be done in segments?

Technical Issues

Is the quality of the printed material good enough to be scanned? Can the material be scanned without endangering the document? Will it be necessary to disbind, flatten, mend in preparation for scanning, make slide images or will treatment/rehousing be necessary to retain the item after scanning? (check with PRESERVATION)

Has the item/collection been cataloged? Is there complete information on holdings and location? Will a special cataloging project be required? (check with CATALOGING). Will the project require equipment of expertise not currently available at SIL?

Are there staff, equipment, or funding available from outside SIL to assist with any aspect of the project?

STAGE 3: APPROVAL

Formal proposal follows established channels of review including the Supervisor and the Division Manager. The project will be submitted to the Digital Library Committee for approval. The SIL Director sits on the Committee.

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All SIL Digital Library projects must have the explicit approval of the SIL Director.

STAGE 4: IMPLEMENTATION

Project is assigned to the Digital Library Project Coordinator who works with the originator and others as necessary to develop a Project Timeline. The timeline, which incorporates specific demands on SIL resources, is circulated to all units within the SIL which will be involved in the project to serve as a planning tool. These include Publications, Cataloging Services, Preservation Services, Systems Office, Development, MSO. The project moves forward under the direction of the Coordinator.

Stage 5: Project Assessment and Review

Periodically during the project and upon completion, the Digital Library Project Coordinator with the project team, assess the progress of the work and the final product. Elements for evaluation include processes and methodologies, out put measures and methods of quality enhancement.

SIL Imaging Center

Workflow for digitization projects

STAGE	RESPONSIBILITY
1. Item proposed for digitization	Staff/Curators
2. SIL Digital Committee approval	SIL Digital Committee
3. Project Prioritization	SILIC Task Force
4. Bibliographic Collation	Curator

5. Item checked in to SILIC   Preservation staff
    - Object tracking workform filled out, travels with item.

6. Conservation Review   Conservator
    - Checked in to BCL
    - Condition report completed
    - Conservation treatment, if necessary
    - Condition report forwarded with item to SILIC
    - Measured for box   Preservation Technician

7. Project Planning Meeting   ISD staff/Preservation staff/Curator
    - Project name; project number; nickname assigned
    - Capture specifications (dpi, capture equipment)
      assigned
    - Derivative standards assigned
    - Create final LAN/Web directory location.
    - Project anomalies
    - Assigned to Preservation staff for scanning

8. Object Preparation   Preservation staff
    - SILIC collation for scanning; scanning worksheets
      filled out
    - Database entry: Project, Item level entry

9. Image Capture - Scanning   Preservation Staff
    - Initial scan of 10 representative images,
      derivatives made, uploaded to CD.
    - Saved as TIFF files
    - Quality control of TIFFs - Photoshop
    - Derivative creation: Super JPGs;
      WWW JPGs - Photoshop
    - Archival CDs of TIFFs created; two copies made;
      labelling of jewel case
    - Database entry: Image information (Image filename,
      CD#, capture device, document structure,
      image description, subject)
    - Quality Control of images by production manager
    - Upload of WWW JPGs to LAN / Final quality control by imaging supervisor
    - If necessary, re-scans/modification of derivatives

10. Creation of apparatus   RSD Staff / Item curator
    - Preparation of scholarly essay, bibliographic essay, etc.
    - Editing of final textual apparatus by SIL Publications Officer

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11. Creating Web version of item   ISD staff
   - Meeting with item curator to discuss navigation methods
   - Review of item database for use in web version creation
   - Upload JPEGs from LAN to Web server
   - Selection of images for navigation devices, etc.
   - Creation of HTML pages for item
   - Creation of "digital editions" title page and image(s)
   - Assemble all components (essay, navigation, etc.)
   - Final review by appropriate staff (RSD, Digital Library Committee, etc.)

12. Cataloging and Metadata   Cataloging Department
   - Final digital edition URL sent to cataloging for cataloging of item in SIRIS
   - Dublin Core metadata created for item and inserted into index page

13. Return item to branch   Preservation staff

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Plans and Reports

Sheridan Libraries
The Johns Hopkins University

Digitizing Medieval Manuscripts: Creating a Scholarly Resource
Final Report
February 2000

The Milton S. Eisenhower Library and the Pierpont Morgan Library have successfully completed the project to investigate digitizing medieval manuscripts. With funding from the Samuel H. Kress Foundation and Ameritech Library Services (currently known as epixtech), we have produced a digital surrogate of the *Le Roman de la Rose*, a thirteenth-century French text. There were two main goals to the project which were addressed successfully. These were: involving the intended users of the digital surrogate, the medieval scholars, in the planning process so that we created a product that served their needs; and identifying tools that are needed to create a useful digital surrogate of a medieval manuscript.

Highlights of the Project
*Involvement of scholar/users throughout the design and development process;
*Solution of technical difficulties of scanning medieval documents to protect vellum, ink, pigments, and bindings;
*Development of a customized DTD (document type definition) for medieval manuscripts;
*Provision of a detailed level of text searching including ends of lines, rubrics, and description of miniatures;
*Ability to offer details of any part of an image quickly through the use of tiling software.

Colloquium November 1998
One of the unique features of this project was the centrality of the scholar in the development process. The project began with a request from a medievalist for help in developing a digital product for use in teaching, and the scholarly perspective remained the focus throughout the planning and development phases. It was this partnership between the medievalists and the technical experts that made the project so successful. The project began when Stephen G. Nichols, James M. Beall Professor of French, Romance Languages and Literature and Department Chairman at Hopkins approached the Eisenhower Library about digitizing medieval manuscripts for his students. We were excited about the possibilities this presented especially as a way to investigate the age-old dilemma facing research libraries: how do you increase access to materials while preserving the originals? Digital technology offered many possibilities to providing the answer to this question, and the challenge began with how to choose the best set of digital tools. It soon became apparent that the skills of the users of the manuscripts, the medievalists, needed to be an integral part of the technical development process. The challenge was how to create a meaningful dialogue between two groups with such differing

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frames of reference. Medieval manuscript scholars think in terms of folios, glosses, rubrics, and rhyming patterns while the technologists talk of search engines, mark-up language, and Java enabled web-browsers. Clearly we needed to bridge the gap. The first phase of the project was a colloquium to bring together the medievalists with technical experts.

In November 1998 forty individuals participated in a colloquium at the Eisenhower Library. A list of the participants and agenda of the colloquium are in Appendix I. The goal of the day was to provide a forum for scholars to talk about how they use medieval manuscripts and what they would like to be able to do; and for technical experts to explain how they have tried to address some of these issues using technology. At the suggestion of Nichols, the project chose one manuscript, *Le Roman de la Rose*, and the colloquium focused on scholarship on this text. The core scholarly advisory group consisted of three medievalists who focus on the *Rose*. They were Kevin Brownlee (University of Pennsylvania), Sylvia Huot (Cambridge University), and Lori Walters (Florida State University). During the colloquium each gave a presentation of how they do their research on a medieval manuscript and what they might like to do electronically that is not possible with the physical text. Professor Walters studies the iconography of manuscripts focusing on the miniatures in *Rose* manuscripts and discussed some of the questions that intrigue her. Professor Brownlee is a textual scholar interested in word patterns and frequency as keys to understanding the texts. Professor Huot discussed her studies of rubrics and glosses and how these provide information on the transmission and interpretation of the text. William Voelkle and William Noel provided additional comments on scholarly use of medieval manuscripts from their perspectives as curators of manuscripts at the Pierpont Morgan Library and the Walters Art Gallery respectively.

To frame a discussion of how these scholars might use a digital surrogate, we asked Huot to demonstrate how she approached the website of the verse life of Edward the Confessor written in the thirteenth century. Daniel Pitti from the Institute for Advanced Technology in the Humanities at the University of Virginia demonstrated a website based on the scholarship of *Piers Plowman*, a fourteenth-century allegorical poem. Pitti had worked with Professor Hoyt Duggan at University of Virginia to create a product that met his research needs. During the afternoon session we continued exploring the potential of applying digital technology to manuscript studies with a presentation by individuals involved in the Philectre project of the Centre National de Recherche Scientifique in Paris. This project approaches the problem of manuscript digital surrogates from both the medieval and modern perspective. Philectre has concentrated on the technical aspects of encoding the texts and linking them to images of the manuscripts in such a way that the scholar is oriented to the whole text.

With this thorough grounding in what scholars might want in a digital surrogate, the presentations then turned to a discussion of the technical issues that might make the desiderata list a reality. Key to using a digital surrogate is the metadata that allows access to the digital items. Metadata, or data about data, is a detailed system of describing digital information in ways that allow researchers to search and manipulate the data and allows technical specialists to manage the data. The presentations by Daniel Pitti, Laurence Creider (University of

Pennsylvania), and Consuelo Dutschke (Columbia University) were designed to inform scholars of some of the possibilities for performing the tasks they described as useful in the morning session. This was followed by a presentation by Fred Mintzer (IBM) on the possibilities and issues involved in creating the digital images of fragile, rare materials.

The colloquium finished with an interesting discussion moderated by James O'Donnell (University of Pennsylvania) on the features scholars would like in a digital surrogate. A summary of the desiderata and other suggestions is in Appendix II. The Eisenhower Library team charged with creating a prototype came away from the colloquium with a thorough understanding of what the end-user, the medievalist, would like in digital surrogates of *Le Roman de la Rose* manuscripts.

Creating the Digital Surrogate of a Medieval Manuscript

The second goal of the project was to investigate the tools that would allow us to create a useful digital surrogate of a medieval manuscript. The three challenges were capturing digital images of fragile manuscripts; transcribing the texts and creating the systems necessary to search them; and customizing the software to search and display the images. For the prototype, we chose to represent three separate manuscripts of *Le Roman de la Rose*. The three were owned by the Walters Art Gallery, Baltimore, the Pierpont Morgan Library, New York, and the Bodleian Library, Oxford University. Capturing digital images of three separate manuscripts owned by three separate research institutions provided a variety of challenges both in the capture and use of the images. The three manuscripts range in date from the fourteenth to the sixteenth century and vary in condition. The one constant is that each is unique and therefore accorded a high level of protection in handling by its curators. The request to create a digital image of each folio was cause for concern by the curators so the first step was a thorough discussion of how the manuscripts would be protected. The main concern was the possible damage to the vellum folios, ink, and pigments from the camera lights and to the manuscript bindings from the need to open the text for a long period of time. We chose to image the Walters manuscript from the original manuscript using the IBM Pro/3000 Digital Imaging system which is designed to address the issues of heat, light, and support of the physical item during scanning. Color transparencies of the Morgan manuscript had been taken when a print facsimile of the original was published in 1994 so we created the digital images by scanning the transparencies. The Bodleian manuscript was imaged for the project by the Oxford University staff. The specifics of the scanning process for each manuscript are listed in Appendix III. We found that careful attention to cradling of the manuscripts during scanning minimized any damage to the folios and bindings. The issues of excess heat and dry air which are so harmful to vellum were addressed with a lighting system that drew the heat away from the manuscript and with increased cooling and humidifying of the air in the scanning room. We believe the project successfully demonstrated to the curators that digital images of medieval manuscripts can be captured safely. A secondary concern for the curators was the use of the digital images. Rights management is an important issue for digital publishing projects such as ours. Curators are used to controlling each use of images from their collections and the request to allow unmediated access posed some

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problems. We addressed these by protecting the site with a password and negotiating a limited time for the site to be available. We are also investigating use of software that creates a digital watermark.

Once the images were completed, the major portion of the project began. This was how to link and display the images to create the digital surrogate and how to enhance the surrogate by making the text and miniatures searchable. The tool chosen for this work was the Text Encoding Initiative (TEI), which is an SGML/XML Document Type Definition (DTD) used for encoding electronic texts, notably humanities texts. TEI is an extremely large set of tags which when applied to a text allows for searching the text and displaying images of the text. TEI has been used widely in electronic text and digitization projects, including some centering on medieval manuscript transcriptions. When using TEI to encode text, one can employ a widely used, preset selection of TEI tags. If, however, more specialized tagging is needed, one can create a custom set of tags or DTD. Elizabeth W. Brown, Project member and metadata specialist, created a custom DTD using specific TEI tags for the project, including tags for transcriptions and medieval manuscript description. Since our project was very interested in trying to replicate the experience of the user interacting with the physical text, it was important to be able to link the images of pages with the search results. In order to address the structure of the folio images, Ms. Brown extended the DTD with custom local tags for structural metadata. To test the search and display capabilities, we decided to mark up only a portion of the 20,000+ lines that make up *Le Roman de la Rose* text. Julia Simms Holderness, a graduate student in the Department of French at Hopkins, transcribed the final 1000 lines of the Walters, Morgan, and Bodleian manuscripts. Using the DTD customized for this project, staff marked up the text, i.e. applied the TEI tags to the transcribed text. This text encoding allowed the project to meet specific requests of the project scholars, including the ability to search rubrics, descriptions of the miniatures, and rhymes at the ends of the couplet lines. Tagging also allowed us to display features of the text in certain ways such as displaying all transcribed rubrics in red.

The final work of creating the prototype was the selection and customizing of software to search and display the digital surrogates. Brian Harrington of the Eisenhower Library's Digital Library Program was the chief architect of the final product testing a variety of software options and doing the programming to customize the final choices: Opentext for searching and Live Picture Zoom Server for display. The key to customizing Opentext was the decision to give the scholars as many options as possible to do their work. From the colloquium, we learned that each scholar approaches a text in a somewhat different way so the design of the search engine needed to be as flexible as possible to enable scholars to do their work and not impose any artificial constraints. Opentext is an extremely powerful search engine also used by other successful digital library programs, many of which use TEI for text encoding. After tagging the text, we were able to index not just the text itself, but also the rubrics, descriptions of miniatures, and words at the ends of lines. We also included references to line numbers in the standard edition of the manuscript (edited by Felix Lecoy) to allow users to find quickly familiar passages and compare lines across multiple manuscripts.

The colloquium discussion also gave us a good idea of how the scholars wished to view the digital surrogates. They wanted to be able to focus on details of the text and miniatures. This meant that we needed to be able to present them with much higher resolution images than we were used to serving over the Internet. Indeed, many of the images of manuscript folios were so large (over 100 MB) that they simply could not be served over the current Internet in any practical manner. We considered a number of options, including distributing the image files on another medium (e.g. digital video disks, DVD) or presenting selected high resolution details of portions of the manuscripts on our web site. In the end, we chose to serve the images using tiling software, specifically, Live Picture Zoom Server. This choice gave us the ability to present users with a full page image of a folio . They could choose to examine a page detail simply by placing the mouse over the part of the folio they wish to examine in detail and "clicking". This allows users to take advantage of our high resolution images, but because only the necessary portions of the image are transmitted at any time, the amount of data transferred to the scholar's web browser is kept small enough to ensure a reasonably quick response. The biggest advantage of using this method is that it does not impose any artificial constraints on the scholar by only presenting them with the details that the project designer thinks are important. Rather it enables the scholar to focus closely on those portions of the manuscript that are most important to his or her research.

Scholarly Feedback on the Digital Surrogate

Le Roman de la Rose: Digital Surrogates of Three Manuscripts, the prototype of digital surrogates, debuted on December 6, 1999 when we invited back to Baltimore the scholars and curators who had advised us on creating a digital surrogate of *Le Roman de la Rose.* A list of the participants and instructions for viewing the site are Appendix IV. The focus of the day was an intensive usability study of the prototype. For this, each scholar was paired with a library staff member. The scholars were then asked to perform a set of tasks while the library staff member recorded the scholars' actions and musings as they tackled the tasks. The tasks were designed to test both the design of the site (how easy was it to find things and were the expected links on the site) as well as the search and display capabilities. Ten scholars tested the prototype during the morning and the testers then convened to sort out the data they collected. The summary of the scholars' experience was the basis for the afternoon discussion. In general, the prototype was a success especially the ability to view entire folios, page through the images as if paging through the codex, and zoom in on portions of a folio for greater detail as well as the ability to search the text. Scholars were impressed by the ability to view at one time three different *Rose* manuscripts which are physically located in Baltimore, Oxford, England, and New York. One participant remarked that such a tool will allow him to conduct research in completely new ways. The scholars also pointed out many smaller design issues that needed correcting as well as larger issues that will take further research and development to address. The sense of the scholars was that the prototype demonstrated the potential that digital surrogates hold for their research and teaching, and they encouraged the libraries to continue developing the project. A listing of the scholars' comments on the prototype are in Appendix V.

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The final session of the day, led by Stephen Nichols and James Neal, Dean of the Hopkins University Libraries, focused on how the prototype could be refined and advanced. The group enthusiastically endorsed continuing the project. They wanted the current site with surrogates of the three *Rose* manuscripts finished and endorsed expanding the site to include other *Rose* manuscripts. It was decided that the project team would investigate the possibility for grant funding to continue development of digital surrogates of medieval manuscripts.

Future Directions

The project staff has reviewed the information gathered about the project and the prototype and have recommended that the Eisenhower and Morgan libraries continue development of digital surrogates of medieval manuscripts. Issues to be addressed center on how to create and manage a large set of digital surrogates of medieval manuscripts. Some of the tasks of a future project will deal with: efficient digital capture of fragile medieval manuscripts; refinement of the DTD for medieval manuscripts; efficient transcription and mark-up of manuscripts containing over 20,000 lines of text; and online management of large numbers of digital images, both the physical items and the access to them.

NEW YORK STATE LIBRARY

FIVE YEAR PRESERVATION PLAN
2000 - 2005

I.   DESCRIPTION OF COLLECTION

The Collection of the New York State Library, built over a period of 183 years, has been assembled to serve the needs of the State government and its people. The collection is diverse in type and format of materials.

There are over 2,400,000 bound volumes, 6,000,000 microforms, 9,000 linear feet of manuscripts, 50,000 rare books, 175,000 maps, 30,000 prints and posters, 25,000 musical scores, and 7,000 posters and broadsides. In addition, the State Library is the regional Federal Depository Library, the depository for New York State Documents and serves as the upstate Talking Book and Braille Library.

A survey of the general collection in 1985 found that 27% of the collection was in poor condition with 22.4% of the collection having brittle paper. The condition of the collection varies greatly from one physical location to another. With the exception of the Reference, Law collections and selected sets of microforms the materials are housed in closed stacks.

II.   ORGANIZATIONAL STRUCTURE

The Preservation unit is part of the Collection Management/Network Services division of the NYS Research Library. The Associate Librarian for Preservation reports to the Principal Librarian for Collection Management/Network Services. There are currently 9 filled positions in the Unit. An organizational chart is attached as **Appendix A**.

III SELECTION CRITERIA FOR PRESERVATION/CONSERVATIONTREATMENT
Content areas in need of attention for preservation, restoration work or reformatting due to current condition, high use and centrality to the mission of the State Library are:
- New York State History
- New York State Law
- New York State Documents
- Genealogies of NYS Families
- Manuscript collections
- Special Collections

The *1998 Research Library Strategic Plan* states,
"**We will establish more focused collection preservation priorities.**

1. We will set aside a certain percentage of the acquisitions budget for preservation.

2. We will base <u>what</u> materials we preserve on specific criteria, including:
   a. Library collection priorities
   b. Customer demand for material or content.
   c. Ease of getting the same information in alternate ways (e.g. document delivery)

3. We will base <u>how</u> we preserve the materials on specific criteria, including:
   a. Relative importance of whether the material itself (e.g. via binding) or the content (e.g., via microfilming) should be preserved.
   b. When a book or document should be preserved for its artifactual value.

4. We will continue to develop policies related to our role in preserving electronic information including criteria for:
   a. What electronic information should be preserved?
   b. How and in what format such information should be preserved (e.g., Paper? Microform? Electronic?)

5. We will develop strategies for improving the communication and awareness of Library staff regarding preservation issues and problems."

Utilizing these guidelines and the *Priorities for the Research Library, 1999*, the Preservation Unit working with a sub-committee of the Collection Development Committee prioritizes conservation treatment for selected content areas and preservation work in the general collections. The *Preservation Policy* for the State Library was established in 1990. This policy is under review and revision and is due for completion in December 1999. *Priorities for the Research Library, 1999* are attached as **Appendix B.**

IV.   CURRENT PRESERVATION PROGRAM

The current conservation/preservation program at the State Library includes work on material, which has been in the collection for decades, and work on materials, which are currently being added. The Library has maintained a preservation program since the 1950's and has expanded and improved the program as explained in each of the nine interrelated preservation functions which are described below.

PROGRAM ACTIVITY

1. Binding and Shelf Preparation

The Library has an aggressive program to bind as much of its printed collection as is practical. Using a bid process, the binding contract is maintained with a commercial vendor who provides full library binding services. Serials and soft cover reference volumes are first priority for commercial binding along with copy one of New York State Documents. Other soft covered items are sent to the shelves with call number, property stamps and theft detection stickers applied. Soft covered items are hard bound when either their use pattern or condition warrants rebinding. The LARS automated binding system was introduced with the implementation of the binding contract which has been in place for the past 5 years. This enabled production to be maintained at he same level with one less staff. Approximately 25% of the binding budget is spent for rebinds.

Pamphlets going to the general collection are placed into acid free pamphlet binders by library staff.

Utilizing a computer program developed by library staff, all call number labels not produced through OCLC are generated on a laser printer using high quality labels with a superior adhesive.

2. Conservation Laboratory

The Conservation Laboratory, a joint space and equipment inventory shared with the State Archives and Records Administration, performs maintenance, rehousing and detailed conservation treatment for flat paper and bound works. The Library has a full time conservation technician and part time assistant in the Laboratory. The Laboratory staff concentrates its efforts on significant artifactual items in special collections, manuscripts, rare books, and copy one of New York State Documents and selected works from the general collection. Materials to receive conservation treatment are cooperatively screened and selected by Manuscripts and Special Collections unit staff and staff of the Conservation Laboratory. Items selected for exhibition are prepared according to sound conservation practices.

3. Book Maintenance and Repair

A book maintenance and repair facility handles repairs for the general collection. Books that go through the circulation area are monitored daily for needed repairs, which can be, completed by library support personnel. The reference collection is also reviewed on a continual basis for physical condition and repairs are done. It is the goal of this work area to return all materials sent for repair to the stacks within 24 hours. This maintenance and the many minor repairs which are done avoid the need for more extensive repairs at a later date.

4. Reformatting and Bibliographic Entries

The Library uses microform as its principal means of reformatting. Photocopying on acid free permanent paper is a second choice. Using in-house production capabilities as well as vendors, the microfilming of newspapers, books, pamphlets and manuscript collections is an ongoing activity. Library staff reformats materials for interlibrary loan use, specific on-demand materials for researchers and New York State documents using 35 mm microfilm and 105mm microfiche.
Bibliographic records for all reformatted materials are entered into the OCLC or RLIN databases.

5. Education and Awareness Training

The preservation unit cooperates with the Library Staff Development Committee to present information and training programs to inform and educate staff in the area of preservation and conservation. As part of this program, programs are developed and presented as well as brief updates on preservation activities are given during library staff meetings and articles pertaining to the care and handling of books are published in the *Staff Information Bulletin*. The Associate Librarian for Preservation takes part in professional development activities through the New York State Library Association.

6. Environmental Controls and Monitoring

Environmental conditions including temperature and humidity play an important part in determining the life of paper and microforms therefore considerable effort is devoted to monitoring and improving these conditions.

Conservation Laboratory staff monitors the building environment, in collection spaces. Dataloggers have been in use for the past six years to provide more detailed information on the building environment. A sound working relationship with excellent communication has been established with the building engineers, and they address out-of-tolerance conditions. Quarterly reports charting the temperature and humidity are prepared to portray the cycles that the building and the collections experience. While ideal conditions are not always met, the engineers do respond rapidly when a trend is detected indicating

an approaching high or low temperature or humidity condition. The control system for the HVAC has been updated with digital controls that report back to a central point within the building and to the Heating Plant. This upgrade has greatly improved control over the drastic temperature and relative humidity changes that the building use to experience.

Water from internal sources cause more situations of immediate concern than water coming into the building due to serve weather. Water alert indicators are installed in all upper floor mechanical spaces in the Cultural Education Center. The presence of water on the floor is signaled back to the Heating Plant. Building security is notified of the condition, as is the Collection Management/Network Services office in the Library. Routine security patrols during evenings and weekends provide additional surveillance of the building environment.

7. Emergency and Disaster Preparedness

A Collections Coordinating Council composed of representatives of the three collection-holding units of the Office of Cultural Education in the NY State Education Department: the State Museum, the State Archives and the State Library operates under the Office of the Deputy Commissioner for Cultural Education. An *Emergency Operations Plan* has been developed for the Cultural Education Center. A copy of the Plan is in **Appendix C.**

Each unit collects and maintains unique materials that differ in physical format, condition and in the amount of handling and type of use they receive. All units, however, share a statutory obligation to preserve and provide access to the cultural collections of New York State. The Council investigates appropriate national and professional standards and conditions under which collections in the CEC are housed. It recommends actions and resources needed to improve conditions, reviews the adequacy of existing plans and develops new plans to: 1) prevent disasters 2) protect collections and 3) respond to and recover from a disaster. A collections Response Team for the Office of Cultural Education is now reviewing plans and procedures for emergency operations in each unit and is combining the plans into one comprehensive Collections Response Plan.

8. Acquisition Committee and Preservation Policy

As a member of the Acquisition Committee, the Associate Librarian for Preservation recommends and supports purchases, which will enhance the preservation effort of the Library. Purchases of microform sets that not only supplement the collection but also provide reformatted copies of items in need of preservation are endorsed.

EXPENDITURES

As reported in the Association of Research Libraries Annual Preservation Statistics the NY State Library Preservation Program has submitted the following data:

Fiscal Year	Funds Expended
FY 94/95	$396,413
FY 95/96	$322,848
FY 96/97	$350.779
FY 97/98	$356,026
FY98/99	$370,395

This has resulted in an average amount spent for preservation of $359,472. The source of funds is library budget and grant funds.

Included in these expenses are salaries, preservation/conservation supplies and related equipment, and funds to support contractual services for reformatting and binding. The efforts of volunteers are not included.

VOLUME OF ACTIVITY

Appended to this plan, as **Appendix D**, are summaries of output/activity for major functions of the Preservation/Conservation Unit. Not included are the numerous consultations provided to individual libraries and persons nor the effort put forth by staff in preparing and giving presentations and participating in committee work.

TECHNICAL PROCEDURES, SPECIFICATIONS AND STANDARDS

Commercial binding is done according to <u>Library Binding Institute Standard for Library Binding</u>. Microfilming is done according to archival standards as defined by the American National Standards Institute and Research Libraries Group. More extensive protection or physical treatment follows established curatorial practice using the Library of Congress Preservation Laboratories as a model whenever possible. All conservation supplies are acid free, permanent paper, non-toxic, reversible and benign.

MONITORING AND EVALUATION

The Associate Librarian for Preservation has the primary responsibility for monitoring and evaluating the effectiveness of the preservation program. As a member of the Association for Research Libraries, the Preservation Unit's annual production statistics are reported to ARL. A narrative report of accomplishments along with a quantitative summary of production is reported annually to Library administration.

V. FIVE YEAR GOALS AND OBJECTIVES

GENERAL GOALS

Preservation goals support the scope of the services and collections of the State Library as defined in its mission statement and its *Collection Development Policy*. The goals of this fourth five-year preservation plan are to continue or initiate activities that will:

1. Maintain a **commercial binding and shelf preparation** program that will ensure protection for the materials in the collection.
2. Provide for the artifactual **conservation treatment** of items in the collection which have significant artifactual value.
3. Provide **repair** for items that are not brittle and are determined to receive most use as they are reviewed at the circulation and stack control points.
4. Insure the **content preservation** of items that the Library collects at the comprehensive and research levels. Emphasis will be on New York State documents, works relating to NYS history, and NYS law.
5. Increase staff and public **awareness** of conservation needs, and provide training in the care and handling of materials where appropriate.
6. Monitor **environmental conditions** and provide rapid communications with the building engineers to maintain optimum environmental conditions for storage and maintenance of the collection.
7. Maintain and update the Library's **preparedness for emergencies and disasters**.
8. Review, evaluate and implement new **technologies** that will advance the preservation/conservation efforts at the State Library.
9. **Coordinate** State Library activities with other preservation efforts in the state, region, and nation.

COLLECTION CONDITION REVIEW

During FY 1984/85 the State Library completed a general survey of its book collection to determine the extent and type of preservation treatment needed. 27% of the collection was identified to be in poor condition. Problems identified included books with boards and covers that were loose or missing, sewing that had deteriorated, and paper too brittle to permit normal use. Screening of materials is done through the circulation area due to the closed stack policy maintained. On a daily basis, Preservation Unit staff review will continue to review all materials passing through the circulation area daily and separate items by type of repair and priority level of the subject.

Manuscripts and Special Collections staff in cooperation with Conservation staff review and set priority on materials needing conservation treatment in the Manuscripts and Special Collections.

MAJOR PRESERVATION GOALS WITH DEVELOPMENTAL OBJECTIVES

The overall fiscal condition of New York State during the next five years will greatly impact the ability of the Library to maintain a strong preservation program. Staffing levels will be of prime importance. With an estimated 600,000 volumes in brittle condition or in need of repair, it is essential that specific priorities and realistic goals be set. Goals and Objectives,

FY2000/01 - 2004/05
Preservation Unit
New York State Library

Activity	Status	Goal	Objectives	Time in FY
Binding & Shelf Preparation	Uses LARS as independent system	Link LARS with Library's Integrated Library System	1. Identify & evaluate programs 2. Select and implement 3. Evaluate performance	1. 2000/01 2. 2001/02
Conservation Laboratory	See appendix D	Increase staff & production	1. Eliminate clerical duties in Lab. 2. Refocus on Cons. Work 3. Set priorities to work	1. 2000/01 2. 2001/02 3. 2001/02
Book maintenance & repair	See appendix D	Increase production	1. Train additional staff 2. Rework work area for greater efficiency 3. Rework statistics gathering method	1. 2000/01 and on going 2. 2000/01 3. 2000/01

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Goals and Objectives, FY2000/01 - 2004/05
Preservation Unit
New York State Library

Reformatting	See Appendix D		
	Maintain production of microforms	1. Work with existing staff to prioritize work	1. 2000/01 and ongoing
		2. Eliminate redundant tasks.	2. 2000/01 and ongoing
	Establish contract vendor for photocopying	3. Write photocopy bid specifications	3. 2001/02
		4. Bid contract	4. 2001/02
		5. Implement service	5. 2002/03
Education	Yearly Staff Development Programs & News articles	Increase awareness of staff	
		1. Provide staff development workshops	1. 2000/01 & ongoing
		2. Provide unit sessions as to work related action	2. 2000/01 & as invited
		3. Handouts & bookmarks	3. 2000/01 & ongoing
Environmental	Monitor and report daily & quarterly	Have stricter control of Temp. & RH in Manuscripts & special collections	
		1. Follow up on 11th fl. Renovation	1. 2000/01
		2. Monitoring and evaluation of area	2. 2002/03
Emergency Operations	Working with OCE Collections group	Develop & implement OCE disaster salvage & recovery operation	
		1. Assist OCE Collections Response Team	1. 2000/01
		2. Conduct mock drills	2. 2000/01 & ongoing

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1. Binding and Shelf Preparation
        The commercial binding operation will continue, using LARS to increase production. We will Identify software to link the LARS system with the Library's integrated library computer system so that accuracy will increase and time in preparation of binding orders will decrease.

2. Conservation Laboratory
        Highest priority for major conservation treatment is and will continue to be material with significant artifactual value located in the Special Collections & Manuscripts unit. No set goals or production rates are projected in this area due to the detailed nature of the work. On a regular basis, joint meetings are held with the head of the Special Collections & Manuscripts Unit to determine direction and schedule work. Major repairs of special collections and unique items are completed in the Conservation Laboratory. It is desirable to increase production in the Laboratory although output in this area is seen as constant for the next five years due to budgetary and staff constraints.

3. Book Maintenance and Repair
        Collection maintenance is an ongoing function of the book repair area. The emphasis is on prevention of the need for major repairs by identifying and completing minor repairs to prevent further damage of the materials. Since the Library maintains closed stacks, all materials returned to the shelves go through circulation and stacks where they are reviewed daily for needed repair/maintenance work. The goal is to have this work done within 24 hours and to increase number of items handled.

4. Reformatting
        The State Library has an ongoing program of reformatting using microform as the primary option with photocopying as an alternative. The goal is to maintain a production of 200,000 frames in-house per year. A second goal is to establish a contract for preservation photocopying.

5. Staff Training and Patron Awareness Program
        This area will receive major emphasis in our program for the next five years. As important as the environmental control of the collection is, it is equally important that staff is made aware of how and why to care for books and other library materials in a manner that is not injurious to the material. The Library administration strongly supports this effort.   An educational program to increase staff knowledge and sensitivity to the preservation of books and all library materials will be conducted in conjunction with the Staff Development Committee.   One major program is planned during each year in addition to in house publicity campaigns that are an ongoing effort. Programs will address current trends in preservation /conservation and will include;
        Scanning, What are its current limits and use in libraries?
        Book Maintenance
        Library Binding Practices
        Reformatting, Selecting an appropriate technology

5. Environmental Control

A daily and quarterly program to monitor and collect environmental data using dataloggers in support of our ongoing requests for adjustments in the environmental conditions will continue in an effort to assure stability within established preservation standards. The Manuscripts and Special Collections area is due to have a major reconstruction of its space starting in 2000. It is the objective of this reconstruction to reconstruct not only the amount of collection's space, reading and work areas but also the environmental controls.

6. Emergency and Disaster Preparedness

In cooperation with the Office of Cultural Education, the Library will continue to maintain a high state of readiness for potential emergencies and disasters. Each year the Library will review its state of readiness, inventory supplies and participate in staff training relating to the need for preparedness.

VI. PARTICIPATION IN COORDINATED PROJECTS

The NY State Library Preservation program has participated in coordinated projects among the 11 Comprehensive Research Libraries of New York since the program began in 1984. In addition the State Library sponsors the New York State Newspaper Project which is funded through the National Endowment for the Humanities and other sources. This project works with the Library to preserve the newspaper collections at the State Library. In addition the Library cooperates with several local libraries and historical associations to microfilm their local newspapers which detail the news/history of the State. Working with the Legislative Library the State Library has completed reformatting the NYS Assembly and Senate documents prior to 1918.

The Preservation Unit takes part in cooperative projects with the Big 11 Libraries to investigate; digitalization of library materials, mass deacidification, and future issues and direction for the Big 11 Preservation participants.

Coordinated funded projects which the State Library has participated in during the past 5 years includes:

1995/96 Screening and rehousing of NYS railroad materials
1995/96 Science Serials Project, reformatting, year 2
1995/96 Social Science Serials Project, reformatting, year 1
1995/96 Reformatting of NYS and Northeast Bio Region Natural History Literature, year 1
1996/97 Evaluation of Kodak Photo CD Project
1996/97 Social Science Serials Projecting, reformatting, year 2
1996/97 Reformatting of NYS and Northeast Bio Region Natural History Literature, year 2
1997/98 Reformatting of NYS and Northeast Bio-Region Natural History Project Literature, year 2
1998/99 Reformatting of NYS and Northeast Bio-Region Natural History Project Literature, pamphlets, year 3
1999/00 Reformatting of NYS and Northeast Bio-Region Natural History Project Literature, pamphlets, year 1

Future coordinated projects in which the NY State Library would like to participate in 2000 to 2005 are:

1. Reformatting of serials published by New York State agencies.
2. Reformatting of monographs published by New York State agencies
3. Screening and rehousing of NYS Railroad materials
4. Reformatting of scrapbooks
5. Conservation treatment of oversized flat materials

New York State Library 5 year Preservation Plan

NEW YORK STATE PROGRAM FOR THE
CONSERVATION AND PRESERVATION OF
LIBRARY RESEARCH MATERIALS

SYRACUSE UNIVERSITY LIBRARY
FIVE-YEAR PLAN
2000-2005

I.   Introduction

Founded in 1870, Syracuse University is a major research university with a mission to promote learning through teaching, research scholarship, creative accomplishment, and service. The University's campus community includes a student population of 10,983 full- and 1,147 part-time undergraduate students; 2,920 full- and 3,243 part-time graduate and law students; 822 full-time instructional faculty, 564 part-time and adjunct faculty members; 2,720 full-time, and 320 part-time staff members. During 1997/98, Syracuse awarded 2,590 Bachelors, 1,839 Masters, 264 Juris Doctors, and 166 Doctoral degrees. Syracuse University has recently completed a University-wide restructuring process begun in 1991, as well as a $300 million *Commitment to Learning Campaign*. The results of this campaign will buttress Syracuse's efforts to achieve its vision to become a "leading student-centered research university."

The Library plays an essential role in advancing the University's efforts to achieve its vision. The Library not only provides and delivers a rich array of essential physical and digital resources to the University community, but also provides a dedicated staff that is committed to supporting the teaching, research, and learning needs of the University's faculty and staff. In addition, the Library is committed to preserving its research collections to ensure that these materials will be available for use by future generations of students and faculty. Evidence of the Library's research status is found in the various memberships the Library holds: it is a member of the Association of Research Libraries, as well as the Research Libraries Group (RLG), participating actively in RLG's Shared Resources, Archives, Manuscripts, and Special Collections, PRESERV, and Law Programs. In addition, the Library is a participant in the Online Computer Libraries Center, Inc (OCLC), a national cooperative bibliographic utility, which links more than 10,000 libraries in 38 countries. Further evidence of the Library's research status is seen in its identification as one of the eleven comprehensive research libraries in New York State to receive annual statutory grant awards from the New York State Program for the Conservation and Preservation of Library Research Materials (NYS/CPP).

IV.   Description of the Syracuse University Library Five-Year Plan for Preservation
A.   Overview of preservation program goals for 2000-2005

The primary goal for the Library's preservation program during the next five years will be to balance traditional preservation activities with digital archiving initiatives. During this period, we will refine and/or enhance traditional program activities to maximize our stewardship role of preserving the University's research resources. In addition, our program will maintain its current regional leadership role and will continue to contribute actively to national preservation efforts. Further, although digital archiving activities are not funded by the New York State Statutory Aid Program, we will develop a local strategy for grappling with this emerging preservation challenge

In order to identify current program strengths, weaknesses, and potentials that may lead to enhancements and/or refinements, we will undertake a ten-year review of our preservation program. This review will lead to a strategy that will combine program strengths and potentials to re-shape and fortify the Library's ten-year preservation program to meet old challenges and greet new ones. Currently, the preservation program's greatest strengths are its centrality to the mission of the Library and University, solid integration into library services, strong administrative support, and substantial external funding support by the New York State Statutory Aid Program. These strengths combine to provide a preservation program that has strong internal credibility within the Library, flexibility that enables staff to pursue creative and innovative approaches to a variety of program components, and relatively stable, but modest, funding support.

B.   Preservation program goals for 2000-2005
1. Binding:
a. Commercial binding operation
1) Predicted change(s) in the commercial binding operation:
- That the quantity of volumes bound by the Library may decrease over the next five years, due primarily to an increase in the purchase of electronic journals in lieu of print copies.

2) Proposed change(s) to the commercial binding operation:
- Investigate the desirability/feasibility of moving the Library's commercial binding operation from a manual to an online operation

3) Five-year goal(s) for the commercial binding operation:
- Investigate the desirability/feasibility of moving the commercial binding operation from a manual to an online operation
- Implement appropriate operational refinements and/or changes recommended by the ten-year preservation program review

4) Annual development objectives for reaching goals:
   2000-2001
- Investigate the desirability/feasibility of moving into an online commercial binding environment (include as part of the ten-year preservation program review)
- Implement operational improvements, as appropriate, that may be recommended by the 1999/2000 Commercial Bindery CAT

   2001-2002
- Initiate implementation of recommendations that may result from the ten-year preservation program review

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2002-2003
- Continue implementation of recommendations (if necessary) resulting from the ten-year preservation program overview

2003-2004
- Maintain current commercial binding operation

2004-2005
- Maintain current commercial binding operation

b. **In-house binding operation (e.g. paperback stiffening, pamphlet binding)**
  1) **Predicted change(s) to in-house binding operation:**
     - No substantial changes are anticipated concerning the current operation
  2) **Proposed change(s) to in-house binding operation:**
     - No changes are proposed to the current operation
  3) **Five-year goals for the in-house binding operation:**
     - Maintain current level of in-house binding activities
  4) **Annual development objectives for reaching goals:**

  2000-2001
  - Maintain production level of current operation

  2001-2002
  - Maintain production level of current operation

  2002-2003
  - Maintain production level of current operation

  2003-2004
  - Maintain production level of current operation

  2004-2005
  - Maintain production level of current operation

2. **Conservation/Preservation**
  a. **General collections conservation/preservation**
  1) **Predicted change(s) to general collections conservation/preservation:**
     - That the quantity of general collections volumes that circulate from the Library may decrease during the next five years. One result of this trend will be the capability of Preservation Department staff to add project-based treatment activities to their general collections preservation treatment activities.
  2) **Proposed change(s) to general collections conservation/preservation:**
     - Develop a strategy to identify project-based preservation treatment approaches for general collections materials
  3) **Five-year goals for general collections conservation/preservation:**
     - Identify, in coordination with bibliographers, general collections materials in need of project-based preservation treatment
     - Develop an implementation strategy for project-based preservation treatment of general collections materials
     - Ensure that general collections brittle materials receive adequate and appropriate preservation treatment
     - Maintain the current use-based preservation treatment operation for general collections materials
     - Continue Library, University, and regional/state training and education and outreach efforts

4) **Annual development efforts for reaching goals:**
2000-2001
- Initiate, in coordination with bibliographers, the identification of general collections materials in need of project-based preservation treatment
- Initiate a review of the current brittle books operation to identify areas for improvement, expansion, and/or retraction (include as part of the ten-year preservation program review)

2001-2002
- Implement recommendations to the brittle books operation , as appropriate, based on the findings of the brittle books review
- Maintain current level of use-based preservation treatment for general collections materials
- Implement, as appropriate, project-based preservation treatment for general collections materials

2002-2003
- Maintain current level of use-based preservation treatment for general collections materials
- Implement, as appropriate, project-based preservation treatment for general collections material

2003-2004
- Maintain current level of use-based preservation treatment for general collections materials
- Implement, as appropriate, project-based preservation treatment for general collections materials

2004-2005
- Maintain current level of use-based preservation treatment for general collections materials
- Implement, as appropriate, project-based preservation treatment for general collections material

a. **Special collections conservation/preservation**
1) **Predicted change(s) to special collections conservation/preservation:**
- That a Conservation Technician (@ 1 FTE) will be hired to support the conservation treatment of special collections materials

2) **Proposed change(s) to special collections conservation/preservation:**
- Secure predictable funding for the Preservation and Access Librarian

3) **Five-year goals for special collections conservation/preservation:**
- Continue identification of materials for conservation treatment based on current selection criteria
- Secure predictable funding for the Preservation and Access Librarian by 2003-04
- Continue Library, University, and regional/state training and education outreach efforts
- Provide support for the Library's developing exhibition program
- Maintain leadership role for conservation training and education initiatives within the Central New York region

4) **Annual development objectives for reaching goals:**
2000-2001
- Review the current conservation operation as part of the ten-year preservation program review
- Select materials for conservation treatment
- Initiate efforts to secure predictable funding for the Preservation and Access Librarian in coordination with the University Librarian, the Curator of Special Collections, and the

Library Development officer
- Provide ongoing support for the Library's developing exhibition program
- Continue Library, University, and regional/state training and education outreach efforts

2001-2002
- Initiate implementation of recommendations that may result from the ten-year preservation program review
- Select materials for conservation treatment
- Continue efforts to secure predictable funding for the Preservation and Access Librarian
- Sponsor, participate in, grant projects as appropriate
- Provide ongoing support for the Library's exhibition program
- Continue Library, University, and regional/state training and education outreach efforts

2002-2003
- Continue efforts to secure predictable funding for the Preservation and Access Librarian
- Select materials for conservation treatment
- Sponsor, participate in, grant projects as appropriate
- Provide ongoing support for the Library's exhibition program
- Continue Library, University, regional/state training and education outreach efforts

2003-2004
- Secure predictable funding for the Preservation and Access Librarian
- Select materials for conservation
- Sponsor, participate in, grant projects as appropriate
- Provide ongoing support for the Library's exhibition program
- Continue Library, University, regional/state training and education outreach efforts

2004-2005
- Select materials for conservation
- Sponsor, participate in, grant projects as appropriate
- Provide ongoing support for the Library's exhibition program
- Continue Library, University, regional/state training and education outreach efforts

3. **Reformatting**
a) **General collections**
1) **Predicted change(s) to general collections reformatting activities:**
   - That some general collections materials may be reformatted through digital technology rather than through more traditional means of photocopying and/or microfilming
   - That some general collections materials may be reformatted through preservation photocopying and/or microfilming through cooperative grant projects sponsored by the New York State Conservation/Preservation Program (NYS/CPP)
2) **Proposed change(s) to general collections reformatting activities:**
   - Established a process to identify materials eligible for funding support from the NYS/CPP
3) **Five-year goals for general collections reformatting activities:**
   - Identify general collections materials eligible for potential NYS/CPP Coordinated Grant Program reformatting projects
   - Link process of identifying candidates for reformatting to the general collections brittle books operation

4) **Annual development objectives for reaching goals:**
   2000-2001
   - Establish a process to identify materials eligible for funding support from the NYS/CPP
   - Sponsor or participate in a NYS/CPP coordinated grant reformatting project as appropriate
   2001-2002
   - Continue the process of identifying/selecting materials eligible for funding support from the NYS/CPP
   - Sponsor or participate in a NYS/CPP coordinated grant reformatting project as appropriate
   2002-2003
   - Maintain current general collections reformatting activities
   - Sponsor or participate in a NYS/CPP coordinated grant reformatting project as appropriate
   2003-2004
   - Maintain current general collections reformatting activities
   - Sponsor or participate in a NYS/CPP coordinated grant reformatting project as appropriate
   2004-2005
   - Maintain current general collections reformatting activities
   - Sponsor or participate in a NYS/CPP coordinated grant reformatting project as appropriate

b) **Special collections**
1) **Predicted change(s) to special collections reformatting activities:**
   - That reformatting requests (microfilming and photocopying) for special collections materials may increase due to the increasing numbers of web-based finding aids created by staff from the Department of Special Collections
   - That reformatting requests for full-text digital availability of special collections materials may increase due to the web-base finding aids and grant project web sites created by staff from the Department of Special Collections
   - That reformatting requests for material from the Library's Belfer Audio Laboratory and Archive may increase, due primarily to the achievements of the three-year cylinder/pre-LP cataloging project funded by the Gladys Krieble Delmas Foundation and the one-year *Radius Project* (funded by the Institute of Museum and Library Services)
2) **Proposed change(s) to special collections reformatting activities:**
   - Explore the desirability/feasibility of re-constituting Belfer's in-house and contract re-reformatting programs
3) **Five-year goals for special collections reformatting activities:**
   - Identify materials for potential reformatting from the Library's Department of Special Collections and/or from the Belfer Audio Laboratory and Archive for potential grant-funded projects
   - Identify grant opportunities for accomplishing the preservation reformatting needs identified for special collections materials
   - Re-constitute Belfer's in-house and contract re-recording audio reformatting programs
4) **Annual development objectives for reaching goals:**
   2000-2001
   - Identify potential sources of funding for a full-time Audio Engineer position at Belfer
   - Identify materials for potential reformatting from the Library's Department of Special Collections and/or Belfer
   - Identify funding sources for potential print-based reformatting projects

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- Continue on-demand audio reformatting activities at Belfer
- Manage the one-year *Radius Project* (1999-2000) funded by the Institute for Museum and Library Services (IMLS)

2001-2002
- Continue to identify other potential sources of funding for an Audio Engineer position at Belfer
- Prepare a grant proposal for a print-based reformatting project as appropriate
- Continue on-demand audio reformatting activities at Belfer
- Coordinate the refinement of the optical heterodyne cylinder playback system completed by the *Radius Project*

2002-2003
- Continue to identify other potential sources of funding for a full-time Audio Engineer position at Belfer
- Continue on-demand audio reformatting activities at Belfer
- Prepare a grant proposal for a print-based reformatting project as appropriate
- Prepare a grant proposal for a two-year cylinder recording reformatting project using the IMLS-funded *Radius Project* optical heterodyne system
- Coordinate refinements, as necessary, of the optical heterodyne cylinder playback system

2003-2004
- Secure predictable funding for an Audio Technician position
- Establish a modest contract re-recording service at Belfer as partial funding support for the Audio Engineer position
- Prepare a grant proposal for a print-based reformatting project as appropriate
- Continue on-demand audio reformatting activities at Belfer
- Initiate a two-year grant-supported cylinder recording reformatting project

2004-2005
- Continue on-demand audio reformatting activities at Belfer
- Continue the grant-funded cylinder recording reformatting project
- Prepare a grant proposal for a print-based reformatting project as appropriate
- Maintain the current level of Belfer's contract re-recording service

5. **Training and Education**
  a. **Predicted change(s) to training and education initiatives:**
    - That preservation training and education opportunities for library staff will increase due, in part, to upcoming revisions in the Library's new-staff training program
  b. **Proposed change(s) to training and education initiatives:**
    - Establish regular preservation training and education opportunities for library staff
  c. **Five-year goals for training and education:**
    1) Continue to offer training and education opportunities for Preservation Department staff, as needed
    2) Provide regular preservation training and education opportunities for library staff
    3) Continue to support preservation continuing education for library staff outside the Preservation Department as appropriate Training and education for Library staff

  d. **Annual development objectives for reaching goals:**
      2000-2001
      - Identify Preservation Department staff training and education needs
      - Identify library staff preservation training and education needs (fold into the ten-year review of the preservation program review
      2001-2002
      - Offer appropriate preservation and education opportunities, as appropriate, to Preservation Department staff
      - Offer a series of skill refreshers for Preservation Department staff, as needed
      - Initiate a series of preservation training and education workshops for library staff
      2002-2003
      Offer a series of skill refreshers for Preservation Department staff, as needed
      - Offer a series of preservation training and education workshops for library staff
      - Explore the need for preservation training and education for other individuals on campus
      2003-2004
      - Offer a series of skill refreshers for Preservation Department staff, as needed
      - Offer a series of preservation training and education workshops for library staff
      - Offer preservation training and education opportunities for other individuals on campus as needed
      2004-2005
      - Offer a series of skill refreshers for Preservation Department staff, as needed
      - Offer a series of preservation training and education workshops for library staff
      - Offer preservation training and education opportunities for other individuals on campus as needed

6. **Environmental controls and monitoring**
  a. **General collections**
    1) **Predicted change(s) to general collections environmental controls and monitoring:**
       - That general environmental conditions in Bird Library may improve, due to work currently underway to balance the HVAC system:
    2) **Proposed change(s) to general collections environmental controls and monitoring:**
       - Initiate spot-check environmental monitoring of the general collections stacks, including Bird Library, and the Geology and Physics branch libraries (all of which have HVAC systems)
    3) **Five-year goals for general collections environmental controls and monitoring:**
       - Initiate spot-check environmental monitoring of general collections stacks, including Bird Library, and the Geology and Physics branch libraries
       - Establish a process that responds to problems that may be identified by monitoring these areas
    4) **Annual development objectives for reaching goals:**
       2000-2001
       - Initiate spot-check environmental monitoring of general collections stacks, including Bird Library, and the Geology and Physics branch libraries
       - Establish a process that responds to problems that may be identified by monitoring these areas
       2001-2002
       - Identify and respond to any problems that may result from the spot-check environmental monitoring of the Bird, Physics, and Geology libraries general collections stacks

2002-2003
- Maintain a seasonal spot-check of Bird, Geology, and Physics libraries general collections stacks

2003-2004
- Maintain a seasonal spot-check of Bird, Geology, and Physics libraries general collections stacks

2004-2005
- Maintain a seasonal spot-check of Bird, Geology, and Physics libraries general collections stacks

b. **Special collections**

1) **Predicted change(s) to special collections environmental controls and monitoring:**
- That the environment in the Bird Library special collections stacks may improve as the result of continued cooperative efforts among the Library, the University's Department of Design, and Construction, and other key departments on campus

2) **Proposed change(s) to special collections environmental controls and monitoring:**
- Initiate regular environmental monitoring in the Belfer Audio Laboratory and Archive stacks

3) **Five-year goals for special collections environmental controls and monitoring:**
- Achieve and maintain the goal of 68-70 degrees F and 50% relative humidity in summer and 30% relative humidity in winter offered in 1996 by the University's Department of Design and Construction as a realistic target environmental range for Bird Library special collections stacks
- Provide regular environmental monitoring in the Belfer Audio Laboratory and Archive stacks

4) **Annual development objectives for reaching goals:**

2000-2001
- Review former initiatives to improve the environment in the Bird Library special collections stacks and continue efforts (in coordination with key individuals from the Departments of Design and Construction, Risk Management. and Physical Plant) to achieve the goals set for temperature and relative humidity
- Initiate regular environmental monitoring of the Belfer Audio Laboratory and Archive stacks
- Maintain regular monitoring of the Bird Library special collections stacks
- Spot-check the environment of the Hawkins Building with dataloggers

2001-2002
- Continue initiatives relating to improvement of the environment in the Bird Library special collections stacks
- Maintain regular environmental monitoring of the Bird Library special collections stacks
- Maintain regular environmental monitoring of the Belfer Audio Laboratory and Archive stacks
- Spot-check the environment of the Hawkins Building with dataloggers

2002-2003
- Achieve the temperature and relative humidity goals for the Bird Library special collections stacks environment
- Maintain regular environmental monitoring of the Bird Library special collections stacks
- Maintain regular environmental monitoring of the Belfer Audio Laboratory and Archive stacks
- Spot-check the environment of the Hawkins Building with dataloggers

2003-2004
- Maintain regular environmental monitoring of the Bird Library special collections stacks
- Maintain regular environmental monitoring of the Belfer Audio Laboratory and Archive stacks
- Spot-check the environment of the Hawkins Building with dataloggers

2004-2005
- Maintain regular environmental monitoring of the Bird Library special collections stacks
- Maintain regular environmental monitoring of the Belfer Audio Laboratory and Archive stacks
- Spot-check the environment of the Hawkins Building with dataloggers

7. **Disaster planning**
 a. **Predicted change(s) to disaster planning:**
  - That concerns relating to issues of fire protection in the Library's special collections may be resolved
  - That there will be regular library staff training and education concerning disaster planning
 b. **Proposed change(s) to disaster planning:**
  - Review earlier investigations into the desirability of providing fire suppression for special collections materials and promote the implementation of a mist or sprinkler system
  - Investigate the desirability of providing fire suppression in the Belfer Audio Laboratory and Archive
  - Establish regular disaster preparedness training for members of the Library's Disaster Recovery Team
 c. **Five-year goals for disaster planning:**
  - Ensure adequate fire protection for the Library's special collections
  - Maintain appropriate level of disaster supplies
  - Ensure adequate disaster preparedness/recovery training and education for library staff
 d. **Annual development objectives for reaching goals:**
  2000-2001
  - Review earlier investigations into the desirability/feasibility of providing fire suppression for special collections materials and make recommendations (in coordination with key individuals from the Departments of Public Safety and Risk Management) based on updated information about, and advancements in, fire suppression systems technology
  - Investigate the desirability/feasibility of providing a fire suppression system for the Belfer Audio Laboratory and Archive
  - Make recommendations (in coordination with key individuals from the Departments of Public Safety and Risk Management) based on updated information about, and advancements in, fire suppression systems technology
  - Complete the revision of the disaster plan and update the disaster plan website
  - Provide training and education for members of the Library's Disaster Recovery Team in coordination with the Library's Security Coordinator and members of the University's Departments of Public Safety and Risk Management
  - Carry out the annual inventory of disaster supplies, and ensure that each department in the Library has the correct allocation of disaster supplies
  2001-2002
  - Continue initiatives involved with the provision of fire suppression for the Bird Library special collections stacks
  - Make recommendations based on findings from investigating the desirability of providing a fire suppression system for the Belfer Audio Laboratory and Archive
  - Carry out the annual inventory of disaster supplies, and ensure that each department in the Library has the correct allocation of disaster supplies
  - Provide a disaster recovery refresher workshop for the Library's Disaster Recovery Team

- Offer a disaster recovery refresher workshop for library staff
- Revise the disaster plan as necessary

2002-2003
- Reach resolution concerning the provision of fire suppression for the Bird Library special collections stack areas
- Continue initiatives resulting from investigating the desirability/feasibility of providing a fire suppression system for the Belfer Audio Laboratory and Archive
- Carry out the annual library-wide inventory of disaster supplies, and ensure that each department in the Library has the correct allocation of disaster supplies
- Provide a disaster recovery refresher workshop for the Library's Disaster Recovery Team
- Offer a disaster recovery refresher workshop for library staff
- Revise the disaster plan as necessary

2003-2004
- Reach resolution concerning the provision of fire suppression for the Belfer Audio Laboratory and Archive
- Carry out the annual library-wide inventory of disaster supplies, and ensure that each department in the Library has the correct allocation of disaster supplies
- Provide a disaster recovery refresher workshop for the Library's Disaster Recovery Team
- Offer a disaster recovery refresher workshop for library staff
- Revise the disaster plan as necessary

2004-2005
- Carry out the annual library-wide inventory of disaster supplies, and ensure that each department in the Library has the correct allocation of disaster supplies
- Provide a disaster recovery refresher workshop for the Library's Disaster Recovery Team
- Offer a disaster recovery refresher workshop for library staff
- Revise the disaster plan as necessary

V. **Participation in past five years New York State coordinated grants**
During the past five years, Syracuse University Library participated in the following New York State coordinated grants:
- **1995-96:** *The New York State Railroad Reformatting Project* (sponsored by SUNY-Stony Brook Library)
- **1997-99:** *The Basic Care and Management of Sound Recordings* (sponsored by Syracuse University Library)

VI. **Projected interests in next five years for New York State coordinated grants**
- Reformatting of photographs
- Sound recording training and education
- Dictionary/encyclopedia preservation photocopying
- Architectural records re-housing

http://libwww.syr.edu/information/strategicplan/index.html

Targets for Transformation

A Strategic Plan for
the Syracuse
University Library
2000-2005

Prepared by the Syracuse University Library
Strategic Planning Steering Committee:
Bobbi Gwilt, Chair
Martha Hanson
Kelley Lasher
Peter McDonald
Pamela McLaughlin
Lisa Moeckel
Suzanne Preate
Susan Spencer

July 19, 2000

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Planning Theme 3: Collections, Preservation, and Access
Select, organize, preserve, and provide access to collections in all formats that fully support Syracuse University's teaching and research activities. The following goals and initiatives focus on this critical area:

Goal 3.1: Collection Development
[Medium Priority/High Feasibility]

Goal: **Evaluate, build, and align collections with current University priorities through collaboration with schools, colleges, and academic departments.**

Rationale: **Provide collections and corollary resources essential to advancing SU teaching and research.**

Success indicators:
- core collections in all SU disciplines
- stronger and more uniform partnerships between faculty/academic departments and the Library
- collection policy statements for all disciplines
- additional funding for collections

Initiatives:

3.1.1 Develop collection policy statements for all disciplines (fund codes).

3.1.2 Assess and build collections considering basic and research level needs.

3.1.3 Obtain additional funding to support acquisitions (See 6.2).

3.1.4 Align resources/allocations to support University-identified centers of excellence.

3.1.5 Evaluate and re-engineer the Collection Development organization.

3.1.6 Establish performance standards to ensure uniformity of bibliographer/selector excellence (See 4.1.7 and 4.2.2).

Project Manager(s) (3.1.1-3.1.6): _____
Action Team Leader: _____
Start date: January 1, 2001
Mid-range initiatives

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Goal 3.2: Digital Archiving
[Medium Priority/Low Feasibility]

Goal: Initiate a digital archiving program for "born digital" scholarly publications generated by Syracuse University, in collaboration with faculty, CMS, and other partners.

Rationale: Digital archiving is a logical extension of the Library's traditional role of preserving the University's intellectual output.

Success indicators:
- digital archiving program is implemented and ongoing
- ongoing collaboration between the Library and campus partners for digital archiving

Initiatives:
3.2.1 Develop a methodology and implement a plan for digital archiving in collaboration with other campus partners.

Project Manager: _____
Action Team Leader: _____
Start date: January 1, 2001
Mid-range initiative

Goal 3.3: Preservation
Goal: Staff the Library's preservation program to provide ongoing analog and digital preservation reformatting with less dependence on grant support.

Rationale: An ongoing preservation reformatting capability using non-grant-supported staff will enable the Library to preserve a broader spectrum of its general and special collections and to contribute more fully to national preservation efforts.

Success indicators:
- feasibility established and strategy developed for ongoing preservation reformatting
- Library is able to undertake a broader range of local/regional/state/and national preservation initiatives

Initiatives:
3.3.1 Determine feasibility of conducting ongoing preservation reformatting for print, non-print, and sound recording materials.

3.3.2 Lead and/or participate in regional. state, and national initiatives to advance SUL's role in, and contributions to, the preservation of scholarly resources in all formats.

Project Manager(s) (3.3.1-3.3.2): _____
Action Team Leader: _____
Start date: January 1, 2001
Mid-range initiatives

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Goal 3.4: Access
[High Priority/Low Feasibility]

Goal: Create integrated, organized, customizable, easy-to-use access to information resources in all formats.

Rationale: Respond to changes in scholarly communication, facilitate learning, discovery, and the creation of new knowledge.

Success indicators:
- easier mechanics of accessing information resulting in fewer complaints
- increased use of resources
- customizable "My Library" information gateway in place

Initiatives:
3.4.1   Create and support a seamless information environment that integrates searching of SUMMIT catalog and databases, Web and Internet resources, and multimedia resources.

3.4.2   Develop a "My Library" information gateway with personalized information space for customized access to resources and software in one secure place, and automatic notification of new resources and services based on a personal profile (i.e., SDI service).

3.4.3   Provide a variety of access options for on-site research and coursework, e.g., computer cluster, laptop loans.

3.4.4   Concentrate efforts on projects that improve the content and functionality of the online catalog, e.g., projects identified in the Library's 1999 Census of Cataloging Needs.

Project Manager(s) (3.4.1-3.4.4): _____
Action Team Leader: _____
Start date: January 1, 2001
Short-term initiatives

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Goal 3.5: National Participation
[Medium Priority/Medium Feasibility]

Goal: Increase SUL participation in national and international research library initiatives.

Rationale: To take advantage of emerging opportunities for partnerships, to improve services to users, and to enhance the reputation of the Library on the national scene, improving our ability to recruit and retain highly qualified staff and become a desirable partner for digital and other initiatives.

Success indicators:
- methodology for selection is implemented
- SUL is a partner in national projects

Initiatives:

3.5.1   Determine projects to which SUL has already committed or should commit, e.g., Research Libraries Group (RLG) Cultural Materials Initiative, Scholarly Publishing and Academic Resources Coalition (SPARC); OCLC's Cooperative Online Resource Catalogs (CORC), Digital Library Federation (DLF).

3.5.2   Initiate participation in projects that SUL has selected based on findings from investigation, communicate activities to the campus community.

3.5.3   Create and implement a methodology to select future initiatives appropriate for SUL

     Project Manager (3.5.1-3.5.3): University Librarian
     Action Team Leader: _____
     Start date: August 1, 2000
     Mid-range to long-range initiatives

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UNIVERSITY OF WASHINGTON LIBRARIES

PRESERVATION OFFICE

Annual Report
1998-99

December 1, 1999
Gary L. Menges

I.   EXECUTIVE SUMMARY

A Preservation Office was established in October 1998 and the Libraries' first full-time Preservation Administrator and first Preservation Research Assistant appointed. Considerable work was accomplished on the Library of Congress/Digital Library grant project, "American Indians of the Pacific Northwest". Acme Bookbinding of Boston was selected as the new preservation photocopy vendor. The Preservation Administrator visited eight university preservation programs. Work was begun on a preservation web page and on several research projects. Three programs on preservation issues were held for Library staff and Friends. The first edition of Samuel Johnson's "A Dictionary of the English Language" (1755) was conserved and fund raising for Save A Book V begun. A Preservation Gift Fund was established and a grant of $2,000 received from the Friends of the UW Libraries for rainy day bookbags. Personnel activities; issues and concerns; goals and objectives for 1999-2000; and a statistical summary for 1998-99 are detailed in the report.

II.   SIGNIFICANT ACTIVITIES, ACCOMPLISHMENTS, INNOVATIONS, AND/OR CHANGES

A.   Preservation Office.

A Preservation Office was established in October 1998 in Allen Library 386F. Gary Menges was appointed the Libraries' first full-time Preservation Administrator. A Preservation Research Assistant position was established and Mark Bieraugel appointed as the first Research Assistant.

B.   Library of Congress/Digital Library Project.

A Library of Congress/Digital Library grant was received in 1998 for the period of July 1, 1998 - December 31, 1999. "American Indians of the Pacific Northwest" was one of seven proposals selected from the 69 proposals submitted in the grant competition. The Preservation Administrator serves as the Project Director.

During the year photograph and text collections were selected for digitization. Scanning students were hired and photographs from the University of Washington Libraries and Museum of History and Industry and slides from the Eastern Washington State Historical Society scanned. Most of the scanning and quality control for the Indian Commissioner annual reports was also completed. Ten authors were identified for the study topic essays, agreements signed, and initial meetings and discussions held regarding the essays which are intended to provide a K-12 context for the digitized collection.

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Microfilming instructions and targets were prepared for the University of Washington Publications in Anthropology and the Publications sent for microfilming and digitizing. Data dictionaries were created for both photographs and text. Upgrading of the cataloging for UW and EWSHS photographs and conversion of the cataloging to Dublin Core was begun in the Monographic Services and text indexing begun in Special Collections. Photograph use permissions were requested from the owning repositories of photographs reproduced in the Pacific Northwest Quarterly articles selected for scanning.

C.   Preservation Replacement

Booklab, the Libraries preservation photocopy vendor went out of business in 1998. Acme Bookbinding in Boston was selected as the new vendor and the first photocopy shipment sent in January, 1999. The Preservation Administrator visited Acme on February 8, 1999. As an experiment digital pdf files were obtained for the first shipment in addition to the hardcopy replacements. The preservation replacement searching backlog was eliminated in the Serials Division. A total of 394 items were reviewed for preservation replacement, not counting the items previously sent to Serials and processed in 1998-99.

D.   Preservation Report

Work was begun on drafting a preservation report for the University Libraries.
The Preservation Administrator visited seven major East Coast university preservation programs in conjunction with ALA Midwinter in Philadelphia. Programs visited are at the University of Maryland, Princeton University, Columbia University, Yale University, Brown University, MIT, and Harvard University. He also visited the hand book binding program at the North Bennett School in Boston. On March 10 he visited the UCLA preservation program in conjunction with the ALCTS Institute, "New Directions In Library Binding," he attended in Los Angeles, March 11-13, 1999. The information gathered during these visits will be useful in developing a preservation program for the University Libraries.
Informational visits to library units were begun with discussions with staff of International Studies and Forest Resources on preservation concerns and problems and possible preservation projects.

E.   Preservation Web Page

Work was begun on a preservation web page.

F.   Preservation Research

Among the preservation-related research projects in 1998-99 were analysis of university preservation web sites, rainy day book bags, the costs and benefits of RLG membership, preservation endowments, pH testing, methods of scanning floor plans for the disaster plan, and a literature survey of collection surveys.

G.   Programs for Libraries Staff and Friends

Three programs on preservation issues were scheduled in 1998-99:

1)   Robert J. Strauss, Bookkeeper Preservation Technologies, L.P., spoke on mass deacidification of paper-based collections, with special reference to the Bookkeeper deacidification process, on April 28, 1999.

2)   Conservator Don Etherington, Etherington Conservation Center,

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Information Conservation, Inc, spoke on the role of the conservator in a library preservation program on May 14, 1999. Mr. Etherington has conserved several of the Libraries' rare books as part of the Save A Book program.

3) The Rare Book Committee of the Friends of the UW Libraries sponsored a program on "Caring for Your Book Collection" on Saturday afternoon, May 22, 1999. This was the second annual RBC book collecting program.

H. Save A Book

Conservator Donald Etherington completed rebinding and repair of the first edition of Samuel Johnson's "Dictionary of the English Language", Save A Book IV. Fund raising began for Save A Book V, the first and second editions of Sir Walter Raleigh's "The History of the World" (1614 and 1617).

I. Equipment

A new computer, monitor, printer, workstation shelving and lighting, and two book trucks were acquired for the Preservation Office.

III. MAJOR ACQUISITIONS, GIFTS, OR GRANTS RECEIVED

A Preservation Gift Fund was established in 1999 and several contributions towards Save A Book V received.

A grant of $2,000 was received from the Friends of the UW Libraries on May 26, 1999 for the design and purchase of "rainy day bookbags."

The Preservation Administrator was the Libraries representative for several donations completed or appraised in 1998/99. These include the Lionel Pries book collection donated by Robert Winskill and appraised at $42,479, Allan Treuer Map Collection appraised at $61,950, a collection of books and other materials from Thomas E. Allen appraised at $6,500, and a collection of scientific instruments and books from the Estate of Robert Lincoln Nichols appraised at $144,322.

IV. RESEARCH HIGHLIGHTS

Not applicable.

V. PERSONNEL

A. Appointments.

Mark Bieraugel was appointed Preservation Research Assistant effective December 16, 1998.

B. Promotions, Transfers, Resignations, and Retirements.

Gary L. Menges, Head, Special Collections and Preservation Division, was appointed full-time Preservation Administrator effective October 5, 1998.

C. Staff Activities: Appointment or Election to Library of University-related Offices OUTSIDE of the University of Washington Libraries.

Gary L. Menges
Member, University of Washington Studies in Genealogy and Family History Advisory Board

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Member, Board, Friends of the University of Washington Libraries
Member, Development Committee, Friends of the University of Washington Libraries
Member, Rare Book Committee, Friends of the University of Washington Libraries
Member, Association of College and Research Libraries, "College and Research Libraries News" Editorial Board. July 1, 1997-June 30, 1999
Member at Large, Association of College and Research Libraries, Washington State Chapter Executive Board, July 1, 1997-
Member, ORBIS Preservation Task Force

D.   Other Accomplishments.

Gary L. Menges
Grant reviewer, Institute of Museum and Library Services 1999 National Leadership Grants.
Presenter: Henry Art Gallery, January 21, 1999. Panel on Digital Archiving in conjunction with the Deep Storage exhibition.
Presenter: Museology graduate students, March 2, 1999, Presentation on issues and concerns relating to digital projects.
Consulted informally on the impact of light on Paul Allen's personal book collection, June 21, 1999.

VI.   PROBLEMS, ISSUES, OR CONCERNS FOR 1999-2000.

Inadequate resources for preservation remain a concern. Other preservation concerns include care of the collections during Suzzallo collection moves and renovation, the dispersal of preservation resources within the Libraries, the reduction in binding budget for 1999-2001, and the need to address issues such as digital archiving and mass deacidification of acidic materials.

VII.   GOALS AND OBJECTIVES, 1999-2000

A.   Complete the Library of Congress/Ameritech Digital Library grant project, "Indians of the Pacific Northwest".
B.   Visit library units to discuss their preservation concerns
C.   Complete a report on preservation in the University of Washington Libraries as a foundation for the Libraries Strategic Plan Goal to "design and implement a system-wide plan for preservation of knowledge resources..."
D.   Design and order the rainy day bookbags.
E.   Complete at least one collection survey of the Libraries' collections.
F.   Begin revision of the disaster plan.
G.   Investigate preservation grant opportunities.
H.   Work on a binding policy for the University Libraries.

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VIII. STATISTICAL SUMMARY, 1998-99

Conservation Treatment volumes/pamphlets:
      Level 1 conservation treatment   9,335
      Level 2 conservation treatment   302
      Level 3 conservation treatment   185
      Total   9,822

Unbound sheets given conservation treatment   25
Custom-fitted protective enclosures constructed   333
Volumes commercially bound   31,516
Preservation Reformatting:
      Books photocopied   118
      Books microfilmed   34
      Books digitized   29
      Sheets microfilmed (newspapers)   108,190
      Photographs reformatted by analog means   336
      Photographs reformatted by digital means   4,659

     Statistics are from the 1998-99 ARL Preservation Statistics and exclude figures for the Law Library.

University of Washington Libraries
Unit Action Plan

Unit Other (indicate below)	Date 3/21/00
Other group(s) Digital Initiatives	Submitted by Geri Ingram

Action
Play leadership role in digitization initiatives of the Washington Cooperative Library Project and throughout the region.

Actively build a Western Region digitization center through participation in the initiative begun by the University of Utah and the Colorado Digital Alliance.

Partner with Pacific Northwest public, tribal, state and other academic libraries, as well as historical societies and museums. to build a regional multimedia archive of primary sources.

Coordinate activities with the UW Offices of Educational Partnerships and Educational Outreach, the Carlson Center (for Leadership and Service Learning) the Information School and UWired.

This is a ☐ New initiative ☒ Improvement or streamlining of current activity

Strategic goal(s) or themes addressed:

☒ Goal 1   ☒ Goal 2   ☒ Goal 3   ☒ Goal 4   ☒ Goal 5   ☐ Goal 6

☐ Theme 1   ☐ Theme 2   ☒ Theme 3   ☒ Theme 4

☐ Other (please explain)

Briefly describe what the unit will do and who will do it
Through working partnerships, build a regional digital library of cultural materials. (Digital Initiatives Program (proposed) "Outreach" Coordinator and staff of the proposed "Digital Library Collections" cross-functional unit reporting in RCMS--PLEASE SEE digint1.doc for details.)

Diversify funding for new digital initiatives by developing new (and enhancing existing) revenue-generating services such as providing reproductions of digitally produced materials.(Outreach Coordinator and proposed Digital Library Collections Division Head.)

Acquire grant funding for initiatives through private and public sources such as the Mellon Foundation and the Bill and Melinda Gates Foundation, the NEH and the IMLS. (Outreach Coordinator and proposed Digital Library Collections Division Head.)

Why this action now?
The transition to a digital library requires repositories to provide digital access not only to licensed and purchased published materials, but also to unique primary sources. Teaching and research, throughout higher education as well as K-12, increasingly seek to incorporate primary materials which have heretofore been difficult to access. Funding opportunities abound as the region's economic growth continues and as education steadily increases its reliance on Web-based delivery of resources. Collaborative work is not only essential, projects which create synergistic benefits are preferable for their economy.

Timeframe for completion
☐ Less than one year
☐ One to two years
☒ Ongoing
Additional information or comments:

Source of supporting resources
☒ Reallocation of existing resources/cessation of current activity
☒ New funding from the Libraries
☒ Outside resources (grants, gifts, contracts, partnerships, etc.)

Additional information or comments:
Currently the Coordinator is the only permanent, full-time staff. Progress thus far has been accomplished largely through cost-sharing efforts of the Libraries RCMS, RIS and Systems staff and especially of the Center for Information Systems Optimization. Selection and description support is needed on a permanent basis.

Requested programmatic funding includes:

.50 FTE fiscal specialist [new]

Ongoing budgetary support including equipment, training and travel. It is expected that grant funding will supplement but most sources expect significant programmatic resources to be offered. [new]

Are you collaborating with another unit(s) or group(s)? ☐ No ☒ Yes
If yes, which? Educational Partnerships, Educational Outreach, UWired, School of Information Science, and the Libraries (RCMS, Systems, RIS -- especially MSSCUA and MicNews)

Additional information or comments:
Currently the Coordinator, Digital Initiatives Program, is attempting to serve in the capacity of Outreach Coordinator as well as project manager for digitally reformatted collections under the CONTENT system. These are two full-time, independent but integrally related functions. The Digital Initiatives Program's Outreach Coordinator would continue to report to the Director of Libraries.

Does the action have the potential to impact other units? ☐ No ☒ Yes
If yes, which? The proposed Digital Library Collections division will comprise staff who select, organize, process and integrate digitally reformatted primary sources. The Digital Initiatives Program Outreach Coordinator seeks partnerships from the region which can help to build the repository of PNW materials through joint funding as well as collaborative collection development.

As such, the DLC staff also integrates and maintains partners' collections according to Libraries' standards.

Additional information or comments:

Have you discussed the potential impact with the other unit(s)? ☐ No ☒ Yes
Additional information or comments:

How will you know the unit action plan was successful?
University of Washington and regional K-20 curriculum and research will reflect usage of the archive. New partnerships will emerge, with new collections being built, as faculty, students and citizens make increased use of the archive for private and formal study and publication. Centrally funded University programs will contribute support and provide exposure. National grant programs will respond favorably to applications for enhancements to the repositories.

What is the name of this Word document? diginit2.doc

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University of Washington Libraries
Unit Action Plan

Unit Other (indicate below)	Date 4/6/2000
Other group(s) RCMS	Submitted by Joyce Ogburn

Action
Develop cohesive plans for building and preserving our digital library collections, both purchased and built locally.

This is a ☐ New initiative ☒ Improvement or streamlining of current activity

Strategic goal(s) or themes addressed:

☒ Goal 1   ☐ Goal 2   ☒ Goal 3   ☒ Goal 4   ☐ Goal 5   ☐ Goal 6

☐ Theme 1   ☐ Theme 2   ☐ Theme 3   ☐ Theme 4

☐ Other (please explain)

Briefly describe what the unit will do and who will do it
RCMS divisions will collaborate with internal and external partners in developing plans that culminate in a more cohesive and targetted digital collection that can be maintained and preserved over time. RCMS will allocate staff resources to digital initatives.

Why this action now?
Increasingly knowledge resources are being developed and delivered in digital formats. Expenditures of the materials budget and staff resouces are being shifted to delivery of information and knowledge resources via electronic means. Libraries with rich primary source material are making more of these sources accessible over the Internet, by providing descriptive information, such as finding aids and cataloging records, and/or through digitizing primary materials. The Libraries have taken advantage of opportunities as they have arisen. Now that more choices are available a more strategic approach needs to be used to identify the most appropriate materials and to find leverage our resources so that we develop and preserve the collections that most serve our user communities and advance scholarly communication. It is time to build more expertise in the tools and knowledge needed to support digital libraries: EAD, scanning, meta data creation, selection criteria, organization, and preservation standards.

Timeframe for completion
☐ Less than one year
☒ One to two years
☒ Ongoing

Additional information or comments:
The first 1 to 2 years will be devoted to shifting resources, refining our strategies, mainstreaming the activities and increasing the knowledge base. The ongoing timeframe will include the implementation of our strategies and the long term activities of preserving and maintaining the resources.

Source of supporting resources
☒ Reallocation of existing resources/cessation of current activity
☐ New funding from the Libraries
☒ Outside resources (grants, gifts, contracts, partnerships, etc.)

Additional information or comments:

Are you collaborating with another unit(s) or group(s)? ☐ No ☒ Yes
If yes, which? Digital Initiatives; IRC

Additional information or comments:

Does the action have the potential to impact other units? ☐ No ☒ Yes
If yes, which? all

Additional information or comments:

Have you discussed the potential impact with the other unit(s)? ☐ No ☒ Yes

Additional information or comments:
There have been discussions with Digital Initiatives and the AD for RIS. Discussion needs to take place with MSCUA and possibly selectors who would be involved.

How will you know the unit action plan was successful?
The effort to build our digital collections will become a mainstreamed and targetted activity. We will have processes and procedures in place that enable us to sustain and support the activites. The Libraries will build widely recognized and utilized resources.

What is the name of this Word document? rcms1.doc

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AAO Preservation Consultant
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Bethany, Ontario L0A 1A0
Tel: (705) 277-1309
Email: iona.mccraith@sympatico.ca

**PRESERVATION ASSESSMENT REPORT
FOR
THE J.J. TALMAN REGIONAL COLECTION**

December 1999

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EXECUTIVE SUMMARY

On December 13, 1999 a visit was made to The J.J. Talman Regional Collection in London, to conduct a global preservation assessment. Following is the report and recommendations from this assessment. In general, John Lutman and Teresa Regnier are to be commended for their many achievements in managing the collections and for their obvious understanding of and commitment to preservation management. I would encourage them to continue with their endeavours and to strive for support in carrying out the recommendations in this report.

Short Term Recommendations

1. Purchase equipment, such as a recording thermohygrograph, for year round monitoring of temperature and relative humidity in all storage areas.

2. Ensure the HVAC system has dust filters installed.

3. Develop a written Preservation Strategy to guide over-all preservation planning and prioritizing.

4. Develop a written Emergency and Disaster Plan specific to the needs of The Talman Regional Collection.

5. Ensure commercial companies producing archival master microfilm copies are adhering to recognized archival standards.

6. Continue to implement a regular cleaning program in the Archives to minimize dust build-up.

7. Continue practice of boxing all collections for protection from dust and rehousing collections in archival quality enclosures.

8. Continue the practice of shutting off lights when an area is not occupied.

9. Prohibit consumption of food and beverages in areas where collections are stored or used.

10. Exhibit only facsimile documents, copy photographic prints and less vulnerable artifacts rather than original records.

11. Continue to provide knowledge and training in preservation management both for staff and student assistants.

12. Whenever possible utilize financial assistance programs such as the CCA Preservation Management grants and interns from conservation and archival studies programs to assist in completing preservation projects.

Mid Term Recommendations

1. Once year round environmental conditions have been assessed through regular monitoring, discuss with the physical plant engineer any required adjustments to the HVAC that may be possible, to ensure constant acceptable temperature and relative humidity levels in order to eliminate the environment which nurtures mould and insect infestation.

2. Cover the windows of the Archives stacks with blinds or curtains to facilitate better light control in this area of the stacks.

3. Implement an Integrated Pest Management Program.

4. Conduct a condition survey of the London Free Press negative collection and undertake preservation copying, starting with negatives in the most advanced stages of deterioration. Original negatives should then be housed in cold storage to stabilize them and retard the rate of deterioration.

5. Undertake a complete collection condition survey to assist in preservation planning and prioritizing for the rest of the holdings and to maximize available resources.

6. Establish an on-going Condition Monitoring Program to regularly survey the condition of the collections and to assist in prioritizing them for conservation treatment, basic preventive care and/or preservation copying.

7. Develop written preservation policies, procedures and guidelines, starting with an over-all Preservation Policy and then policies and procedures for specific functions and activities such as exhibitions and loans, pest control, care and handling in the reference room, etc.

8. Create back-up copies of vital operating, administrative and archival records and store them off-site in a secure location in the event of a disaster affecting the Archives.

9. Purchase a lux meter and ultraviolet light meter for use in monitoring exhibits and storage areas.

10. Increase staffing to ensure there is at least one member of staff supervising the reference area at all times when patrons are present.

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Long Term Recommendations

1. Investigate the possibility of acquiring more space for the Talman Regional Collection and the Research Depository Library either within the Weldon Library or, in another building where archival standards could be better achieved. In either case, consideration must be given to the special needs of heritage collections with respect to environmental control, security, access, storage and staff work space. It would be beneficial to consult with a conservator early in the planning and design stage.

2. Enclose the stacks completely with floor to ceiling walls, to separate the storage area from reference and workspace.

3. Construct a proper environmentally controlled exhibition gallery for display of original records and artifacts.

4. Install a fire suppression sprinkler system within the Archives.

5. Install a surveillance system (video or CCTV) for the reference room and an alarm system connected to an outside security agency or university police.

Organization Charts

Arizona State University Libraries/Preservation Department - 06/2000

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                   │Library Aide I│
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        ┌──────────────┐
        │Library Assistant│
        │    Senior    │
        └──────────────┘
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Vice-President for Information Services and University Librarian

Deputy Vice-President Academic Information Systems

Deputy University Librarian

Library Systems Office Director

Preservation Division Director

Imaging Coordinator

NEH-funded Microfilming Project Coordinator

Conservation Lab Head Conservator

Special Collections

Circulating Collections

Binding & Shelf Preparation Supervisor

Preservation Reformatting Dept. Assistant Director

Reprography Lab

Customer Order Clerk

Filming & Photography

Digital Imaging Projects

Brittle Book Preparation

New York State Projects

In-House Use-Based

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PENNSYLVANIA STATE UNIVERSITY

Preservation Department
Organizational Chart
(revised July 10, 2000)

Phone Numbers:

Head of Preservation	863-4696
(fax)	865-8769
Bindery	863-2135
Collections Care	865-2125
Digital Pres./ Microfilm	863-8331
Receiving Room	863-4359

Judith O. Seig Chair for Preservation
Head, Preservation Department

Preservation Services Support Assistant

Receiving Room Operations

Digital Preservation

Microfilming

(P/T)
(P/T)

Collections Care

Mass Deacidification

Bindery

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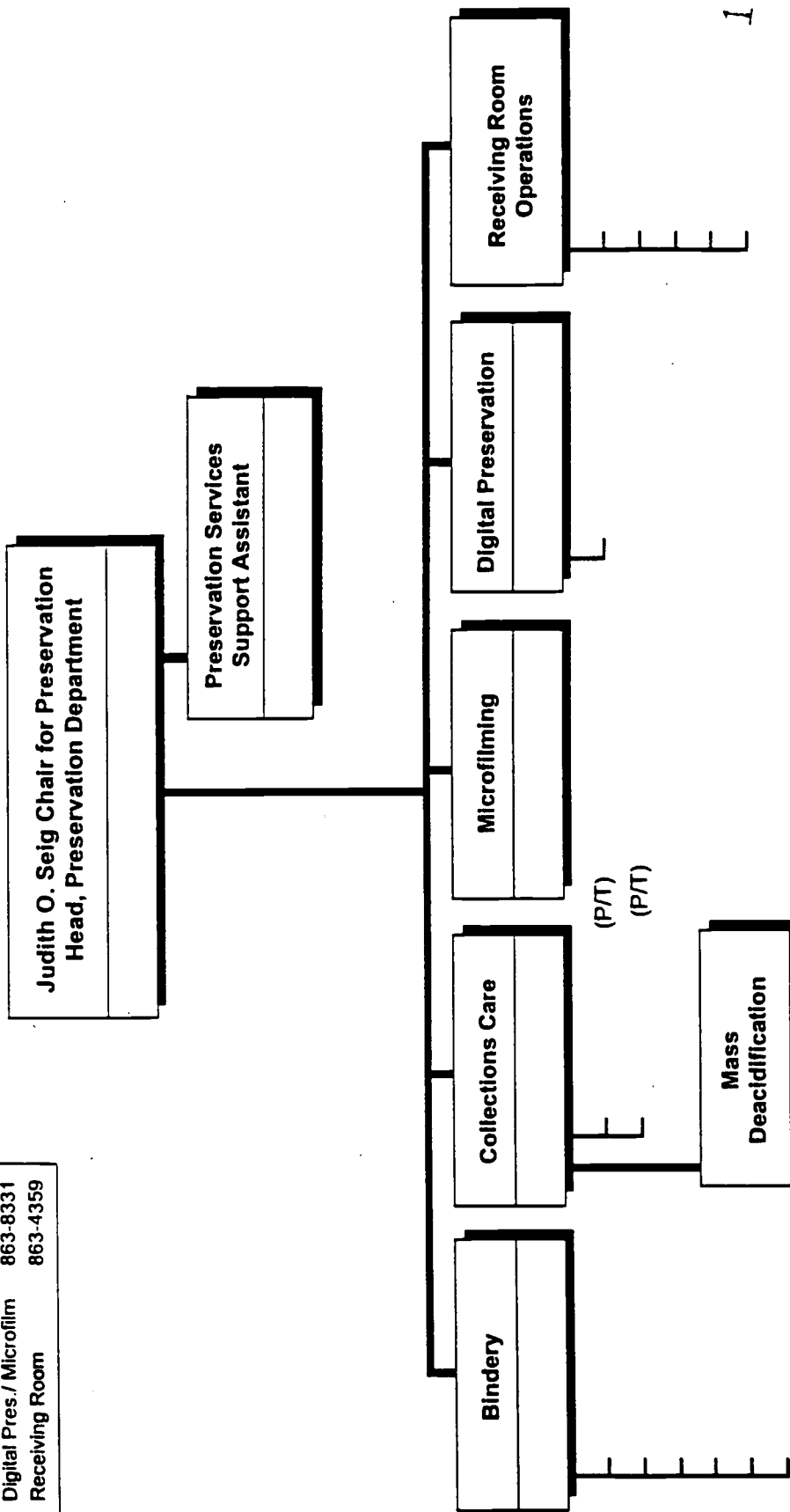
Smithsonian Institution Libraries
Preservation Services Department
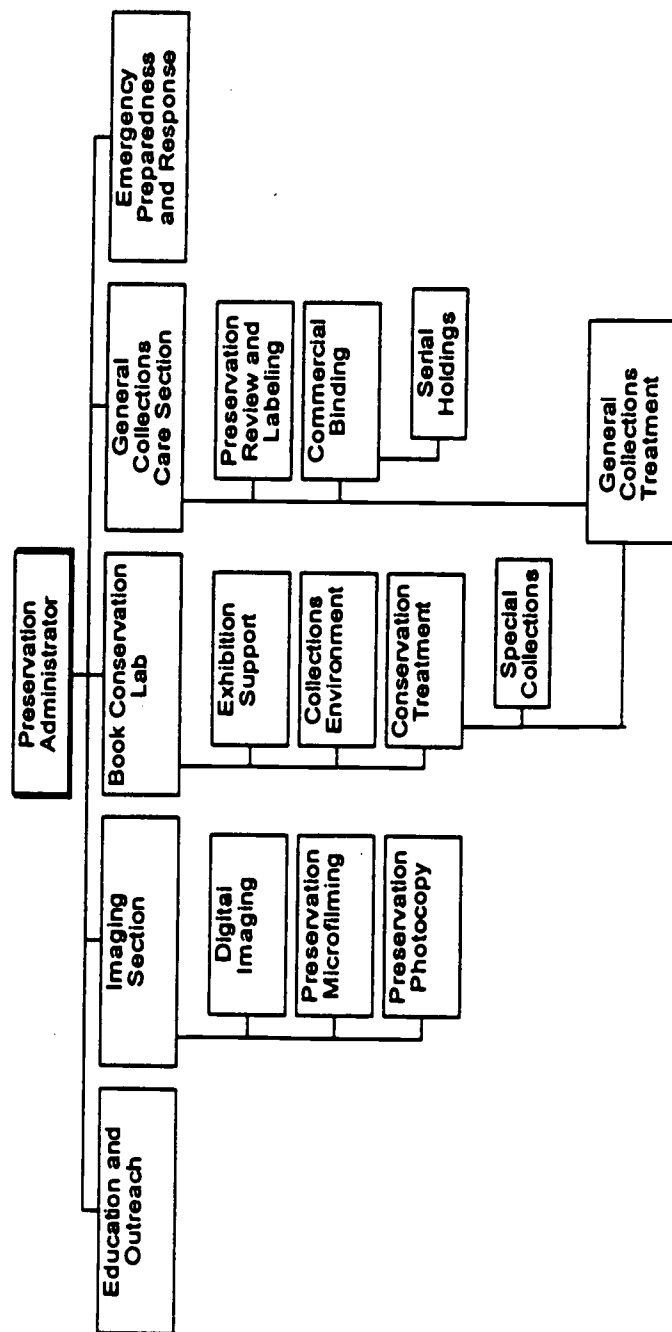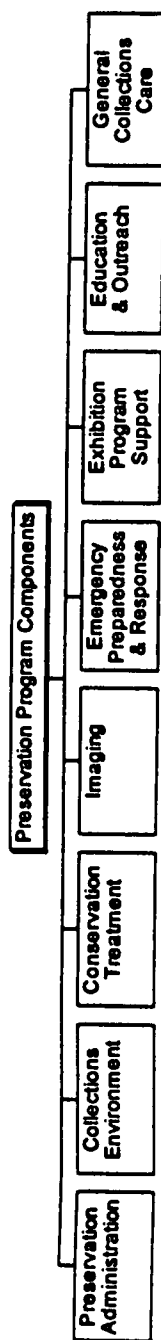
Budget

**1999/2000 COMPREHENSIVE RESEARCH LIBRARIES
STATUTORY AID**

**SYRACUSE UNIVERSITY LIBRARY
FINAL REPORT**

The New York State Program for the Conservation/Preservation of Library Research Materials continued to play a crucial role in maintaining Syracuse University Library's preservation program during 1999/00. The summary below of state-funded program activities follows, essentially, those proposed in our 1999/00 state aid application:

- To maintain current program activities
- To introduce three program enhancements:
    1) Creation of a full-time Conservation Technician position responsible for the preservation treatment of special collections materials
    2) Creation of a half-time Audio Collections Maintenance support staff position at the Belfer Audio Laboratory and Archive
    3) Creation of an on-demand audio preservation re-recording program

However, the 1999/00 grant period resulted in unanticipated salary and benefits savings due an unsuccessful Conservation Technician search and our decision not to create the half-time Audio Collections Maintenance position at Belfer. In addition to these salary savings, we did not charge the Library's contribution to the Council on Library and Information Services against state funds. The resulting available funds enabled us to adjust our 1999/00 preservation activities to:

- Support .33 FTE of Conservator Peter Verheyen's total salary and benefits
- Acquire preservation consultation services
- Purchase contract conservation treatment services for special collections materials
- Acquire audio preservation re-recording equipment
- Purchase additional preservation supplies
- Support preservation microfilm print master storage expenses

The two attached FS 10-A Budget Modification forms confirm these changes to the Library's original budget approved for 1990/00.

SUPPORT OF ONGOING PROGRAM ACTIVITIES

During 1999-00, the Library expended $108,878 in state funds to support ongoing preservation program activities. These expenditures included:

1. **Personal Services and Benefits:**
   New York State Statutory Aid provided $87,345 in funds to support a portion of Preservation Department salaries and benefits during 1999/00. This figure includes: $36,413 (@.50 FTE) of the Preservation Administrator's salary and benefits; $15,247 (@.33 FTE) of the Library Conservator's salary and benefits; $28,217 in salary and benefits for one support staff member (@1 FTE); $5,312 in salary and benefits for one part-time staff member (@.50 FTE); and $2,156 in College Work Study student support.

2. **Contracted Services:**
   a. **Consultants:**
      $760 in state funds supported the expense of preservation consultation services by Graphics Conservation Studio (Ithaca, NY) for potential treatment of four elephant folio Audubon bird prints.

   b. **Contractual Agreements:**
      $7,861 in state funds supported the expense of conservation services by the Ethrington Conservation Center (Greensboro, NC) for treatment of 465 Marcel Breuer architectural plans and encapsulation and binding of 172 Frank Lloyd Wright plates. In addition, $865 in state funds supported the cost of storing the Library's collection of preservation microfilm print masters at Preservation Resources (Bethlehem, PA).

3. **Supplies:**
   The Library used $11,338 in state funds to purchase supplies that supported ongoing preservation program activities.

4. **Other Expenses:**
   $1,946 in state funds supported staff travel and accommodation for the:
   - Curator, Belfer Audio Laboratory and Archive to attend the annual Association for Recorded Sound Collections conference (Madison, WI)
   - Preservation Administrator and Belfer Curator in their respective roles as Project Director and Project Coordinator for the two-year coordinated grant entitled *Basic Care and Management of Sound Recordings*
   - Preservation Administrator to attend the semi-annual meeting of the Preservation Administrators of the New York State Eleven Comprehensive Research Libraries

SUPPORT OF NEW INITIATIVES

The Library used $15,885 in state funds to support the creation of a modest on-demand audio preservation re-recording program. These funds supported the cost ($705) contract re-recording services provided by Robert J. Hodge, Senior Engineer at Syracuse University's Faculty Computing and Media Services Department and the purchase of an Archeophone cylinder re-recording playback machine ($15,180).

Preservation: The Value of Conservation Practices

Budget Request: 2000-2001

A serious and cost-effective preservation program requires a conservation laboratory. In the broad sense, preservation includes all actions taken in order to prevent, stop, or slow deterioration of library materials: managing the environment and housing of materials, proper handling practices, effective security, and user and staff education. Conservation has a narrower focus but supports preservation by preventing, stopping, or slowing the deterioration of individual items through item-by-item treatment and repair. Very often the simple five-minute hinge-tightening repair, costing a library roughly fifty cents, prevents a trip to the bindery for a rebind or recase, which would cost five to six dollars. For example, SOLINET estimates the following repairs can be done in-house at these prices, including labor and material:

Endsheet Replacement	$1.15
Spine Replacement	$2.61
Recase in Original Cover	$3.78

Currently, instead of completing these basic repairs in-house, the library is sending the damaged items to the bindery for more the expensive option of rebinding. We pay $5.00 for a rebind and $6.00 for a recase. Many of the items sent could be taken care of in-house by student employees at a much lower cost. Phase boxes, which help slow the deterioration of brittle books and prevent acid from spreading to other materials, can be constructed in a conservation lab for $6.69, as opposed to $15.00 at the bindery. A conservation program can therefore save a library time and money and help build a more "preservationally" stable collection.

Space and equipment costs often inhibit libraries trying to begin a conservation program. Fortunately, half the challenge is already met here at Hodges Library. Plans are underway to create space for a conservation lab in the spot originally designed for just such a use. For the lab to be functional and not just an empty space with a dream, supplies and equipment are needed, and with the right equipment and supplies, staff and students can use the lab to create a more stable collection. Equipment will support basic repair work and box construction. Supplies will permit work on repairs such as spine replacements, mending, and box making. The following items are needed to begin conservation work in the lab.

Conservation Supplies and Equipment

CONSERVATION SUPPLIES NEEDED

Item:	Description:	Price:
Japanese Tissue Papers		
Kizukishi	Pkg. 5 sheets 24"x36"	$ 81.65
Tosa Tengujo	Pkg. 5 sheets 21"x31"	$ 73.25
Box Board		
	60 pt., gray/whilte barrier board, 100 sheets	$ 475.00
	20 pt. board, 50 sheets	$ 127.90
Lens Tissue	Pkg. 10 sheets 24"x36"	$ 14.90
Buckram Book Cloth	Three 60 yd. Rolls	$ 210.00
		$ 4.15
	Large	$ 7.70
Book Knife		$ 12.40
Book Sewing Needles	Pkg. of 25	$ 6.60
Bookbinder's Awls	Price for 5	$ 70.75
Micro Spatulas	Price for 2	$ 18.60
Binder's Thread	3600 yds.	$ 30.65
Glue Brushes		
	1/2" diameter	$ 4.95
	3/4" diameter	$ 7.95
	1" diameter	$ 9.25
	1 1/2 " diameter	$ 21.65
	2" diameter	$ 31.75
Velcro Tape	3/4"x 5 yds.	$ 21.95
pH Testing Pen	Price for two	$ 7.40
Pointed Tweezers		$ 7.60
Weight Bags		
	2"x3"	$ 7.50
	2"x5"	$ 10.65
	2"x10"	$ 16.30
	4"x7"	$ 25.95

Bristol Board	.010 Thickness, 16"x20", Pkg 100	$	53.45
Blotting Paper	Unbuffered, 20"x30", Pkg. 10	$	18.85
Pressing Boards			
PVA	1 gallon	$	49.95
White Cotton Gloves			
	Medium, 2 pr.	$	8.00
	Large, 2pr.	$	8.00
Scalpels	Price for 3	$	18.00
Blades	Box of 100	$	19.50
Reemay	8 mils. Thick, 25 1/2"x 100 yds. Roll	$	69.25
Newsprint Paper	34"x500' roll	$	19.75
Mylar			
	Roll, 50' of 4 mil.	$	58.30
Filmoplast	164 ft. roll, 3/4'	$	19.95
Pamphlet Binders	Packages of 25		
	6 1/2" x 9 1/2"	$	24.50
	9 1/2 x 12 1/4"	$	43.00
	12 1/2 x 15 1/2"	$	63.75
	19 1/4 x 14 1/4"	$	74.75
	Total:	$	1,855.45

EQUIPMENT NEEDED

Item:	Description:	Price:	
Standing Book Press	Wooden	$	513.50
Conservaiton Work Trays			
	11x14"	$	17.60
	16x20"	$	34.30
	20x24"	$	51.20
	23x28"	$	73.45
Dahle Safety Trimmer	50"	$	472.50
Paper Cutter with Table	36x34"	$	966.50
Cornerrounder		$	198.00
Tacking Iron		$	73.25

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Steamer	$	252.25
MeasurePhase	$	101.50
Riveter	$	247.30
Drying Rack	$	775.00
Board Crimper	$	500.00
Total:	$	4,276.35
Grand Total:	$	6,131.80
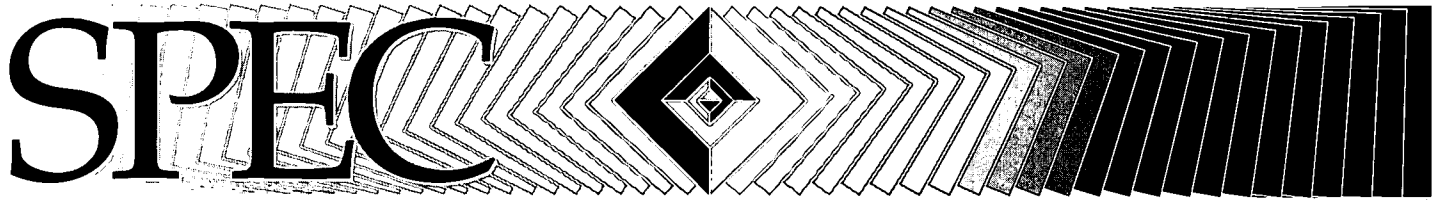
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SELECTED RESOURCES

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SPEC KIT ORDER FORM

QTY	TITLE		QTY	TITLE		QTY	TITLE	
			___	SP221	Evol & Status of Approval Plans	___	SP161	Travel Policies
			___	SP220	Internet Training	___	SP160	Preservation Org & Staff
			___	SP219	TL 2: Geographic Info Systems	___	SP159	Admin of Lib Computer Files
			___	SP218	Info Technology Policies	___	SP158	Strategic Plans
			___	SP217	TL 1: Electronic Reserves	___	SP157	Fee-based Services
			___	SP216	Role of Libs in Distance Ed	___	SP156	Automating Authority Control
			___	SP215	Reorg & Restructuring	___	SP155	Visiting Scholars/Access
			___	SP214	Digit Tech for Preservation	___	SP154	Online Biblio Search
			___	SP213	Tech Svcs Workstations ·	___	SP153	Use of Mgt Statistics
			___	SP212	Non-Librarian Professionals	___	SP152	Brittle Books Program
			___	SP211	Library Systems Office Org	___	SP151	Qualitative Collect Analysis
			___	SP210	Strategic Planning	___	SP150	Bldg Security & Personal Safety
			___	SP209	Library Photocopy Operations	___	SP149	Electronic Mail
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			___	SP206	Faculty Organizations	___	SP146	Lib Dev Fund Raising Capabilit
			___	SP205	User Surveys in ARL Libs	___	SP145	Lib Publications Programs
			___	SP204	Uses of Doc Delivery Svcs	___	SP144	Building Use Policies
			___	SP203	Reference Svc Policies	___	SP143	Search Proced Sr LibAdmin
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___	SP261	Post-Tenure Review	___	SP201	E-journals/Pol & Proced	___	SP141	Approval Plans
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___	SP259	Fee-based Services	___	SP199	Video Collect & Multimedia	___	SP139	Performance Eval: Ref Svcs
___	SP258	Corporate Annual Reports	___	SP198	Automating Preserv Mgt	___	SP138	University Copyright
___	SP257	MLS Hiring Requirement	___	SP197	Benefits/Professional Staff	___	SP137	Preservation Guidelines
___	SP256	Changing Roles of Lib Profs	___	SP196	Quality Improve Programs	___	SP136	Managing Copy Cataloging
___	SP255	Branch Libs/Discrete Collectns	___	SP195	Co-op Strategies in Foreign Acqs	___	SP135	Job Analysis
___	SP254	Managing Printing Services	___	SP194	Librarian Job Descriptions	___	SP134	Planning Mgt Statistics
___	SP253	Networked Info Services	___	SP193	Lib Develop & Fundraising	___	SP133	Opt Disks: Storage & Access
___	SP252	Supprt Staff Classifictn Studies	___	SP192	Unpub Matls/Libs, Fair Use	___	SP132	Library-Scholar Communication
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___	SP247	Management of Lib Security	___	SP187	ILL Trends/Staff & Organ	___	SP127	Interlibrary Loan
___	SP246	Web Page Devel & Managmnt	___	SP186	Virtual Library	___	SP126	Automated Lib Systems
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___	SP243	TL 8: Users with Disabilities	___	SP183	Provision of Comp Print Cap	___	SP123	Microcomp Software Policies
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___	SP231	Cust Service Programs in ARL	___	SP171	Training of Tech Svc Staff	___	SP111	Cooperative Collection Dev
___	SP230	Affirmative Action in ARL	___	SP170	Organization Charts	___	SP110	Local Cataloging Policies
___	SP229	Evaluating Acad Libr Dirs	___	SP169	Mgt of CD-ROM	___	SP109	Staff Training for Automation
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___	SP226	TL 4: After the User Survey	___	SP166	Materials Budgets	___	SP106	Electronic Mail
___	SP225	Partnerships Program	___	SP165	Cultural Diversity	___	SP105	Nonbibliographic Dbases
___	SP224	Staff Training & Development	___	SP164	Remote Storage	___	SP104	Microcomputers
___	SP223	TL3: Electronic Scholarly Pubn	___	SP163	Affirmative Action	___	SP103	Asst/Assoc Dir Position
___	SP222	Electronic Resource Sharing	___	SP162	Audiovisual Policies	___	SP102	Copyright Policies

QTY	TITLE		QTY	TITLE		QTY	TITLE	
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___	SP100	Collection Security	___	SP066	Planning Preserv of Lib Materials	___	SP032	Prep, Present Lib Budget
___	SP099	Branch Libraries	___	SP065	Retrospective Conversion	___	SP031	Allocation of Resources
___	SP098	Telecommunications	___	SP064	Indirect Cost Rates	___	SP030	Support Staff, Student Assts
___	SP097	Building Renovation	___	SP063	Collective Bargaining	___	SP029	Systems Function
___	SP096	Online Catalogs	___	SP062	Online Biblio Search Svcs	___	SP028	Gifts & Exchange Function
___	SP095	Lib Materials Cost Studies	___	SP061	Status of Librarians	___	SP027	Physical Access
___	SP094	Fund Raising	___	SP060	Lib Materials Cost Studies	___	SP026	Bibliographic Access
___	SP093	User Instructions for Online Cats	___	SP059	Microform Collections	___	SP025	User Statistics and Studies
___	SP092	Interlibrary Loan	___	SP058	Goals & Objectives	___	SP024	User Surveys
___	SP091	Student Assistants	___	SP057	Special Collections	___	SP023	Grievance Policies
___	SP090	Integrated Lib Info Systems	___	SP056	External Communication	___	SP022	Private Foundations
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___	SP084	Public Svcs Goals & Objectvs	___	SP050	Fringe Benefits	___	SP016	Reclassification
___	SP083	Approval Plans	___	SP049	Use of Annual Reports	___	SP015	Goals & Objectives
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___	SP080	Specialty Positions	___	SP046	Plan Future of Card Catalog	___	SP012	Acquisition Policies
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___	SP078	Recruitment-Selection	___	SP044	Automated Acquisitions	___	SP010	Leave Policies
___	SP077	Use of Small Computers	___	SP043	Automated Circulation Sys	___	SP009	Tenure Policies
___	SP076	Online Biblio Search Svcs	___	SP042	Resource Sharing	___	SP008	Collective Bargaining
___	SP075	Staff Development	___	SP041	Collection Assessment	___	SP007	Personnel Class Schemes
___	SP074	Fees for Services	___	SP040	Skills Training	___	SP006	Friends of the Lib Organization
___	SP073	External User Services	___	SP039	Remote Storage	___	SP005	Performance Review
___	SP072	Executive Review	___	SP038	Collection Dev Policies	___	SP004	Affirmative Action
___	SP071	User Surveys: Eval of Lib Svcs	___	SP037	Theft Detection & Prevent	___	SP003	A Personnel Organization
___	SP070	Preservation Procedures	___	SP036	Allocation Materials Funds	___	SP003	Status of Librarians
___	SP069	Prep Emergencies/Disasters	___	SP035	Preservation of Lib Materials	___	SP002	Personnel Survey (flyer only)
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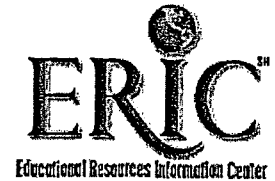
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